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"COSTIN C.KIRIŢESCU" NATIONAL INSTITUTE FOR ECONOMIC RESEARCH

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Research published scientific research aimed both economic development and clarification of the current economic phenomena and processes. As a result, conclusions and proposals offered by the authors address both academia - scientists, teachers, students - as well as decision makers. We emphasize the importance of scientific contributions, together with the clarity of concepts, methodologies and conclusions offered.

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PLENARY SECTION

ECONOMIC ORDER AND GLOBALIZATION

Emil DINGA[1]

Abstract

The paper aspires to deliver a general and abstract examination of the concept regarding the economic order and the relationship of it with the process of globalization. To this end, firstly the concept of order is examined and defined, then, based on the general concept of order, the concept of economic order is derived and characterized. Once clarified these concepts, five relationships between the economic order and the globalization are questioned as follows: a) ontological relationships; b) logical relationships; c) axiological relationships; d) epistemological relationships; e) praxeological relationships.

Keywords*: economic order, globalization, ontology, logic, axiology, epistemology, praxeology*

JEL Classification*: B40, O10, P48*

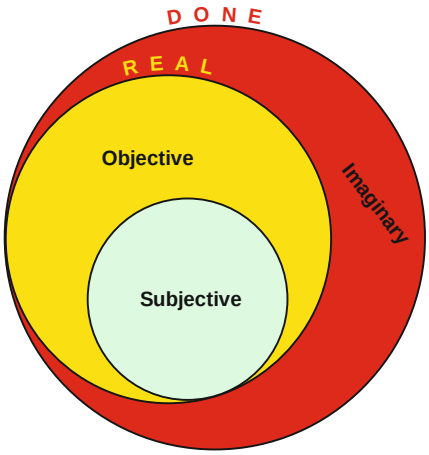
Introduction

My intervention is focused on the general relationship between the economic order and the globalization. The economic order is seen as an order driven by a criterion of order, while the globalization is seen as an inherent process of syncretism. Specifically, I am interested to examine the way in which an order – the economic order in such case – faces a process which is, by definition, associated with the disorder, at least in its first phases. The paper will analyze this issue from a very abstract perspective, more precise, from a philosophical and logical points of view, trying to provide an insight on a phenomenon which cannot be stopped any more, once it has started.

Concept of order

To discuss about the concept of order, it is important to distinguish among the sectoral concept of the Heidegger-ian concept of the done. In this context, the done must be considered the most existential concept, which comprises all existed, all exist, and all will exist in the world (the Universe). The done has, in its turn, two components: a) the real; b) the imaginary. Now, the real is composed by the objective real – what exists outside and non-related to the consciousness – and the subjective real – what exists as result of the consciousness, but related to the objective real, while the imaginary is the result of the consciousness, but without any link to the objective real. A visual representation of the done is exhibited in figure 1.

Figure 1. The structure of the existent



Source: author's construction.

The conceptualization of order must start from the three entities which the world contains: 1) the things; 2) the relationships; c) the properties. The things are the primitive entities of the world, and they must be understood in the most general signification: objective, subjective, and imaginary things, as the concept of

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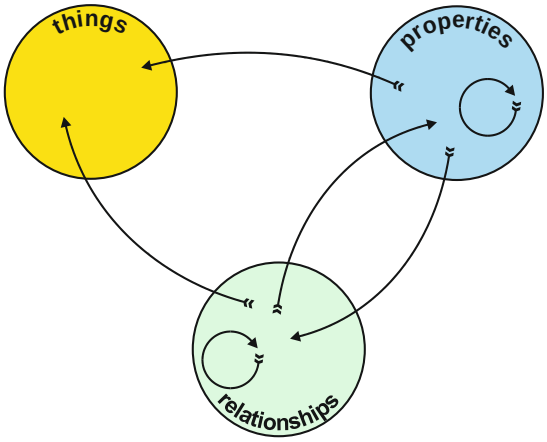
done allows. The relationships must be understood as connections of any nature (based on substance, based on energy or based on information). These connections can be of causal nature, of simple correlations nature or of structural nature[2]. The relationships can be: a) between things; b) between relationships[3]; c) between properties; d) between things and properties; e) between things and relationships; f) between relationships and properties. The properties must be understood as specifications of the things or relationships which are aimed to give the individuality (the „personality") of them. The properties be: a) properties of things; b) properties of relationships; c) properties of properties[4].

A visual representation of the done is exhibited in figure 2.

Figure 2. The entities of the world (Universe)



Source: author's construction.

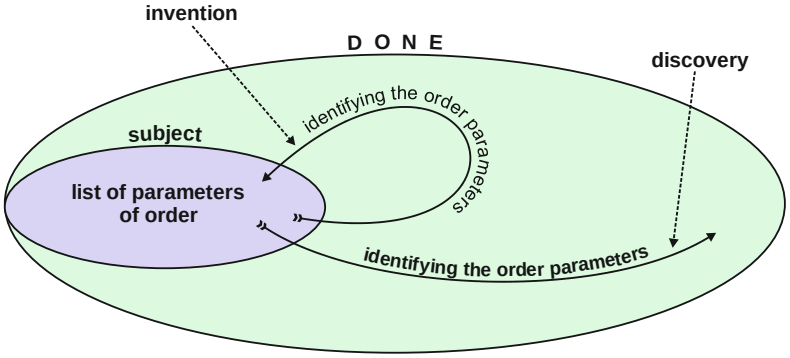
A crucial question arises here: the order is of ontological or of epistemological (or, more general, of a gnoseological) nature? The question is similar to that of the probability nature. My answer is the same to that delivered with regard to the probability issue: the order is of epistemological (or gnoseological) nature, not of ontological one. In other words, the order there is not in the world (more precise, in the done), but it is „put" by the subject into the object, that is, into the done, no matter the order in case is regarding to the objective real, subjective real, or imaginary. In this context, an order can be „put" into the world if and only if there is a criterion which has the power to induce, according to its nature, such an order. In fact, I think the process of identifying an order follows the next steps:

- the knower subject browses his/her list of parameters regarding possible orders of the world; such a list pre-exists based on previous knowledge and experience or, in certain cases, as result of the imaginary production;
- if the object (the world) exhibits a parameter of order which is in the list, then the subject recognise it and, as consequence, accept an order which is compatible with that parameter;
- if the subject doesn't recognise at all such a parameter which is also in the list, then, from the point of view of the involved subject, no order is into the object (world).

This „procedure" is visualised in figure 3.

[2] *The structural connections are simply the co-existence connections in „making" the Universe, firstly form the spatial perspective.*
[3] *That is, relationships of the second degree.*
[4] *That is, properties of the second degree.*

Figure 3. The „procedure" to identify (find) an order in the object (world, done)



Source: author's construction.

In conclusion, about the concept of order, the following could be retained:

- assigning of the order parameter (OP) to a given entity can be made apriori only
  - ✓ it is not an absolute (Kant-ian) apriorism but a local one, referring to that entity or to the class of entities to which the intentional target entity is associated
  - ✓ OP assignment is made by comparing the „a priori list of OPs" with the actual primary configuration of the intentional target entity
  - ✓ this „a priori list of OP" works in analogy with the operation of the Kuhn-ian paradigm, but at a much more fundamental level
    - ✓ if the primitive configuration of the intentional target entity is not found in the „a priori list of the OPs", then no order will be observed/intuited to the entity in question

So, the order is therefore a fundamental configuration of a given entity, which is perceived by the subject only if the parameter of the given element has a „twin" in the „a priori list of OPs" cognitively accessible to the subject. It is possible that a given entity be assigned to one or more concurrent orders, or to none (in the latter case we are talking about chaos)[5].

Concept of economic order

By economic order, I'd understand an order based on an economic order parameter (EOP). An EOP has the following feature:

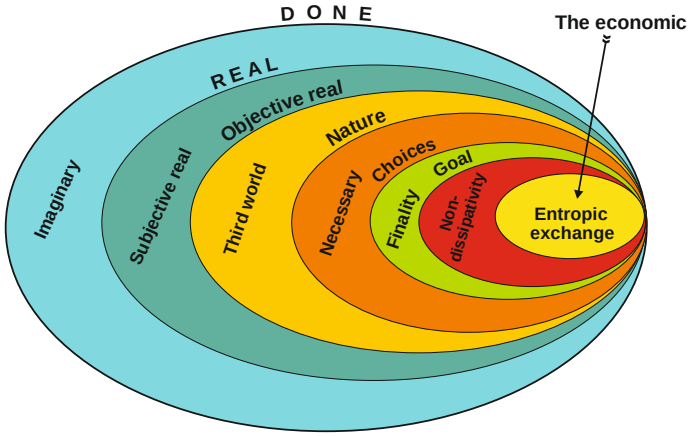
- it only focuses the objective real, not the whole done, not even the whole real:
  - – is attributable to the economic entities;
  - – by economic we mean the part of the objective real that has four predicates of sufficiency:
    - (1) is necessarily associated with human being:
      - – NB1: by human being we understand a being of a cultural type (sufficiency predicates for a cultural being: 1) endowed with consciousness and 2) capable of representation);
      - – NB2: by intermediation of the human being, the objective done acquires a new component: the objectification of the inter-subjectivity (Popper's third world);
    - (2) involves choice (that is, option among available/accessible alternatives);
    - (3) involves purpose (that is, realized finality);
    - (4) ultimately involves entropic exchange between human being and nature (nature is a component of the objective real);

NB: entropic exchange with nature also exists in the case of non-cultural beings, but we have no purpose in such a case, although we have a choice, so we do not have the economic in this case.

In figure 4 is „extracted" the economic from the done.

[5] *The order has a historical character: it can appear or disappear.*

Figure 4. The „procedure" to identify (find) an order in the object (world, done)



Source: author's construction.

Typology of economic order

By economic object I understand any of three distinct economic phenomena:

- act, action, activity (AAA): eg. production, exchange
- result of act/action/activity (R/AAA): eg. goods, services
- mechanism regarding the act/action/activity (M/AAA): eg. prices, profits, costs, utilities

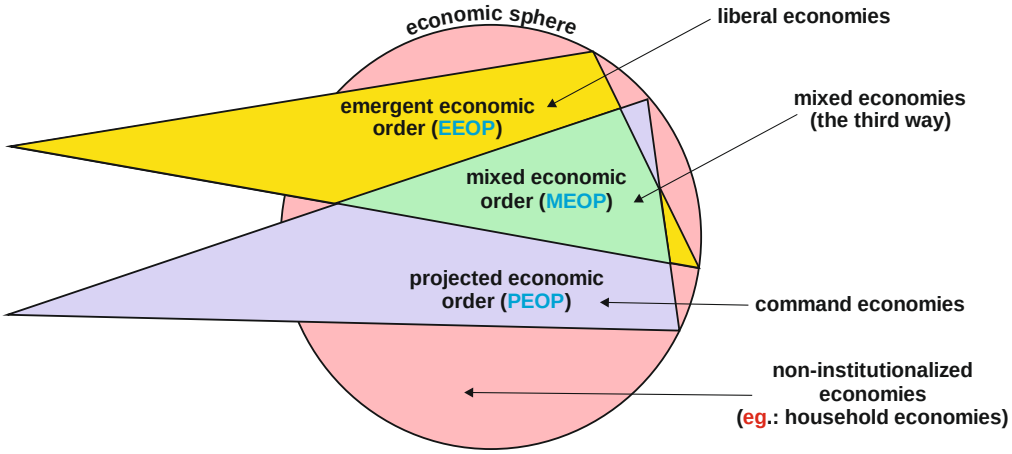
Related to the economic object, there are the following possible EOPs:

- (1) emerging economic order parameter (EEOP)
- (2) projected economic order parameter (PEOP)
- (3) mixed economic order parameter (third way) (MEOP)

- (1) EEOP features:
  - economic objects appear impersonally, un-deliberatively, and un-coordinated
  - economic objects appear at micro level (economic entities: eg. individuals, firms)
  - economic institutions follow economic objects
- (2) PEOP features:
  - economic objects appear in a personalized, deliberate and coordinated way
  - economic objects appear at macro level (economic aggregates: eg. states)
  - economic objects follow economic institutions
- (3) MEOP features: by combining the two previous sets of features.

Figure 5 visualises the above considerations.

Figure 5. The three EOPs and the associated economic systems

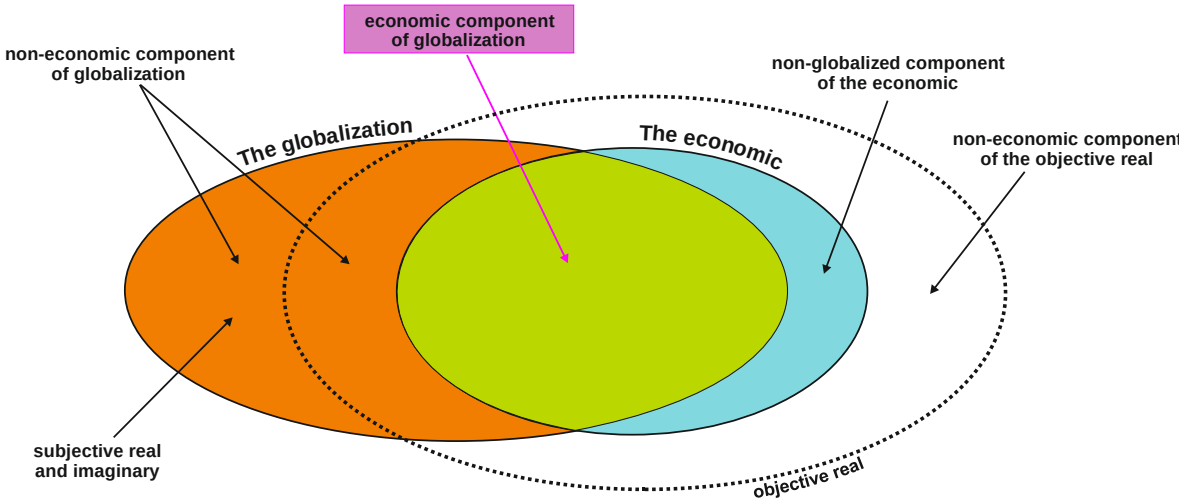


Source: author's construction.

Ontological relationship economic order – globalization

The general ontological relationships between the economic order and the globalization process is shown in figure 6.

Figure 6. The ontological relationships between economic order and globalization

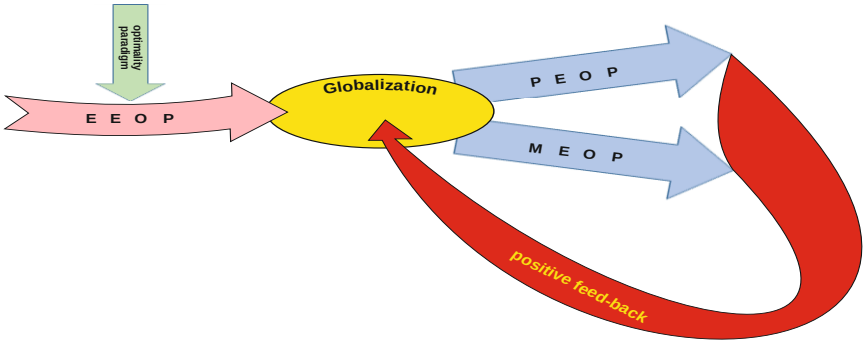


Source: author's construction.

Logical relationship economic order – globalization

The general logical relationships between the economic order and the globalization process is shown in figure 7.

Figure 7. The logical relationships between economic order and globalization



Source: author's construction.

Axiological relationship economic order – globalization

The general axiological relationships between the economic order and the globalization process is shown in figure 8.

Figure 8. The logical relationships between economic order and globalization

	globalization	globalization
paradigm	optimality	sustainability
EOP	EEOP	PEOP / MEOP
value	gain maximizing	indefinite replicating

Source: author's construction.

Epistemological relationship economic order – globalization

The general epistemological relationships between the economic order and the globalization process is shown in figure 9.

Figure 9. The epistemological relationships between economic order and globalization

	globalization	globalization
paradigm	optimality	sustainability
EOP	EEOP	PEOP / MEOP
prediction type	phenomenological (eutaxiological)	normative (teleological)
„truth" type	relative (competition-based)	absolute (survival-based)

Source: author's construction.

Praxiological relationship economic order – globalization

Figure 10. The epistemological relationships between economic order and globalization

	globalization	globalizare
paradigm	optimality	sustainability
EOP	EEOP	PEOP / MEOP
determinism type	microscopic (micro-based of macro)	macroscopic (macro-based of micro)
criterion for economic behaviour	maximizing	sustainabilizing

Source: author's construction.

ASPECTE ALE ANALIZEI SWOT PRIVIND TRECEREA LA EURO A CELOR ȘAPTE ȚĂRI NEMEBRE ALE UNIUNII MONETARE EUROPENE (UME)

Prof.univ.dr.Gheorghe Zaman[6], McAR
Prof.univ.dr.Valentina Vasile[7]
Dr.Anca Cristea[8]

I. Oportunități și amenințări generate de aderarea la zona euro rezultate din analiza literaturii de specialitate

Zona euro este considerată ca **cea mai avansată formă de integrare monetară** care se bazează pe utilizarea unei monede comune sau curs de schimb fix, politică monetară unică, promovată de o bancă centrală transversală a tuturor țărilor membre. În conceptul original, se prevedea aplicarea acestei soluții instrumental-instituționale pentru creșterea bunăstării țărilor membre, prin înlăturarea mai multor bariere în calea dezvoltării sociale și economice și consolidarea relațiilor economice între țările membre ale grupării integraționiste. Erau avute în vedere menținerea și consolidarea realizării unei piețe comune tipice, precum și facilitarea îmbunătățirii eficienței managementului în țările membre.

Funcționarea entităților economico-financiare ale statelor într-o uniune monetară permite obținerea unui mare număr de beneficii, concomitent cu manifestarea anumitor amenințări.

Avantajele macroeconomice ale participării țărilor la UME (Uniunea Monetară Europeană), sunt pe larg analizate în numeroase lucrări ale specialiștilor (Hitiris T., 2003; Cohen B.J., 2003, ”Are Monetary Union Inevitable ?”, International Studies Perspectives, Vol.4, No.3, p.275-292; Goodhart C.A.E., 2007, Currency Unions, Some Lessons from the Euro Zone, International Atlantic Economic Society, Vol.35, No.1, p.1-21; Nordman P., 2018, Is There a Future for the Euro? Evaluating the paths in saving the euro project. Helsinki Metropolia University of Applied Sciences, 42 p). Prezentăm în sinteză principalele avantaje desprinse din literatura de specialitate, dar și din studierea efectelor practice ale funcționării UME timp de aproape două decenii, și anume:

- moneda unică oferă avantajul (eficiența) unei unități de măsură și calcul, precum și de tezaurizare;
- standardizarea și diminuarea ratei dobânzii ca urmare a scăderii costurilor pentru a câștiga capital și, pe cale de consecință, a contribui la creșterea ratei investițiilor într-o piață mai stabilă și previzibilă;
- diminuarea/eliminarea costurilor tranzacționale, legate de cursul de schimb în comerțul din interiorul grupului integrațional, precum și a altor costuri de protecție împotriva riscului de curs valutar, pentru creșterea eficienței bunurilor și serviciilor care rezultă din aceasta, dar și a pieței serviciilor, capitalului și muncii;
- economisiri generate de utilizarea unor resurse de schimb extern și menținerea la un nivel mai scăzut, a rezervelor valutare în interiorul țărilor membre;
- creșterea **credibilității** și a **stabilității economice** generale a țării membre, ca urmare a eliminării riscului de devalorizare și a posibilității de a obține în mod automat suport financiar de la autoritățile monetare centrale;
- creșterea transparenței prețurilor, făcând necesară integrarea pieței, creșterea specializării și a nivelului comerțului intragrup, cu efecte favorabile asupra dimensiunii piețelor care se produc în interiorul unor schimbări structurale de competitivitate și lichiditate;
- intensificarea tendințelor de consolidare a standardizării și coordonare conducând la unificare politică și fiscală, ceea ce accelerează creșterea economică a întregii uniuni;
- reducerea vulnerabilității atât a statelor membre cât și a întreprinderilor, față de distrugeri externe precum și o stabilitate mai mare a prețurilor;
- din punctul de vedere al piețelor, cele mai importante beneficii care apar provin de la dispariția unor costuri tranzacționale, legate de cursul de schimb valutar și protecția împotriva riscului de rată a

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[7] *Cercetător științific gradul I, Institutul de Economie Națională*
[8] *Cercetător științific gradul III, Institutul de Economie Națională*

schimbului valutar, standardizare și reducerea ratei dobânzilor, creșterea în transparența prețurilor și dezvoltarea pieței interne.

Dezavantajele și posibilele amenințări ale aderării la Uniunea Monetară Europeană, potrivit specialiștilor prezentate în literatura de specialitate pot fi:

- incapacitatea anumitor țări de a se adapta la șocurile asimetrice în utilizarea unor instrumente tradiționale ale politicilor economice naționale cum ar fi, de exemplu, rata cursului de schimb valutar;

- posibilitatea de a elimina veniturile din seignorage, ca sursă a venitului bugetar, a profiturilor obținute, pe seama emisiunii de bani de la guvern, în sensul că veniturile din emiterea de monede în circulație, ca valoare nominală, sunt mai mari decât costurile de producție;

- costuri generate de introducerea și implementarea unei monede noi;

- transferul drepturilor (entitlements) politicii monetare (alocări, subvenții, anuități) ale diferitelor state membre la nivelul uniunii și creșterea dependenței altor politici naționale, cum ar fi politicile bugetare ale uniunii, bazate pe o politică monetară comună, ca efect al pierderii parțiale a drepturilor naționale suverane;

- utilizarea valutelor comune ale unei grupări integraționiste de către terți sau utilizarea de către acestea a monedelor naționale ale țărilor care aparțin uniunilor cu rate de schimb valutar reciproc fixe, ceea ce ar putea conduce la anumite perturbări ale funcționării sistemului valutar internațional;

- riscul ”rotunjirii prețurilor” (rounding prices), recunoscut și sub numele de ”efectul cappuccino”;

- riscul de a nu reuși a se ajunge la un acord în ceea ce privește criteriile de convergență nominală, care ar putea ca în perioade ale ratei fixe de schimb valutar să genereze o inflație structurală mai mare și un mix non optimal de politici;

- supraîncălzirea climatului economic, bazată pe posibilitatea de a stabili rate reale ale dobânzilor sub nivelul lor natural, de echilibru care pot conduce la o alocare inadecvată a capitalului sau chiar la apariția de numeroase ”bule” speculative, de exemplu, în piața imobiliară.

Unul din punctele slabe ale zonei euro se referă la **diversitatea** foarte mare a țărilor membre, din punctele de vedere cultural, politic și economic. Există deosebiri dintre țările din Nordul UE și a celor din Sud, dintre structurile economiilor și ale instituțiilor, ceea ce are impact diferit asupra ciclului economic din fiecare stat membru. Această diversitate generează provocări serioase pentru banca centrală care trebuie să răspundă simultan nevoilor de finanțare, atât de diverse și specifice, ale fiecărei țări. Problema privind aplicarea principiului o singură mărime este bună pentru toate tipurile de politici monetare (”one size fits call monetary policies”) se află în stadiul unor polemici aprinse, mulți specialiști considerând că este imposibil ca o bancă centrală să asigure sustenabilitate pe termen lung a politicilor monetare, din diferitele state ale zonei euro.

În cazul în care în unele țări politicile eurozonei nu dau rezultate așteptate și generează reacții negative ale populației există și amenințarea utilizării unui referendum de ieșire din Uniunea Monetară. Exemplul Brexit nu reprezintă numai o victorie a celor care doreau ieșirea Marii Britanii din zona euro dar și o amenințare a politicii monetare a Uniunii, în cazul în care una sau alta din țările membre nu sunt satisfăcute de perspectivele pe care aceasta le induce. Joseph Stiglitz (2016), criticând politica monetară strictă (rigidă) a BCE în timpul crizei financiare, declanșate în anul 2008, și-a exprimat o serie de îndoieli referitoare la banca centrală în sensul dacă aceasta a servit interesele zonei euro sau politicile sale au fost influențate de partenerii mai puternici ai zonei.

Oportunități. Cea mai importantă oportunitate pentru Uniunea Monetară rezidă în integrarea și mai puternică și profundă a țărilor membre astfel încât UME să devină o forță mai stabilă a economiei mondiale. Deși criza monedei euro a fost dificil de stăpânit, aceasta a contribuit la sporirea eforturilor țărilor de a crește stabilitatea sistemului financiar european, diminuând vulnerabilitatea acestuia, față de unele provocări viitoare. Este vorba de întărirea supravegherii bancare, elaborarea de directive pentru o transparență mai mare pentru consumatori pe pieţele financiare. Aceste instrumente întăresc capacitatea de reziliență la viitoare fenomene de criză.

Țările membre ale UE împreună cu UME formează un complex economico-financiar cu capacitate mare de intermediere, comparativ cu țări acționând individual. Țările de mici dimensiuni au posibilitatea de a-și

face cunoscute opiniile și a fi luate în considerare într-un proces decizional complex, integrat, avantaj pe care nu l-ar fi avut acționând singure.

Oportunitatea construcției unei uniuni fiscale a țărilor membre UME constituie un factor important de a combate cu mai mare eficiență șocurile economice, prin recurgerea la transferuri de fonduri de la țări mai dezvoltate către cele mai puțin dezvoltate. Un astfel de transfer este posibil a fi realizat cu ajutorul impozitării progresive țările mai bogate plătind cote și impozite mai mari pentru țările mai puțin dezvoltate, aflate în dificultate. Examinând cazul SUA, observăm că politica monetară, prin flexibilitatea și integrarea factorilor politici și economici, nu se află într-o stare constantă a insecurității economice și politice. Țările membre ale UME ar avea posibilitatea să folosească un alt instrument din arsenalul său pentru combaterea șocurilor atunci când nu mai este posibil să se bazeze pe deprecierea monedei.

Analiza SWOT în cazul aderării României la UME trebuie să aibă în vedere și o serie de opinii teoretico-metodologice și practice în ceea ce privește perspectivele posibile de reformare a acesteia, pornind de la faptul că, în prezent, se constată **incompletitudinea sa**, datorită lipsei unei uniuni monetare și fiscale care ar putea constitui pilonii solizi ai rezistenței sale.

Sixten Korkman (2015) consideră că eforturile pentru salvarea UME sunt mai puțin costisitoare, în comparație cu ieșirea din această uniune. Aceasta pentru motivul că un colaps la UME ar însemna o nouă și profundă criză financiară. Pe lângă platforma sistemului pentru plăți în timp real (Real Time Gross Settlement System – RTGS), cunoscută sub denumirea de TARGET2, utilizată la plăți de către băncile comerciale și banca centrală, în implementarea politicii monetare (European Central Bank 2016), specialiștii consideră că ”salvarea euro necesită intensificarea integrării economice și politice între țările UME, prin crearea **uniunii fiscale**, a **uniunii bancare** și **mutualizarea datoriei**, prin emisiune de ”Eurobond-uri”.

Alte opinii importante pentru soluționarea situației de criză a monedei unice se referă la poziția Germaniei care condiționează acordarea de sprijin financiar Greciei, cu condiția ca aceasta să aplice măsuri de austeritate economico-financiară, iar Grecia, pe de altă parte, este în favoarea sprijinirii cheltuielilor guvernamentale pentru a înlesni ieșirea din depresiune prin ea însăși, dar și a **mutualizării datoriilor**, Germania fiind împotriva unei astfel de măsuri, la care raliază Franța și țările nordice.

Măsura de reformare a UME, prin formarea **uniunii fiscale**, vizează creșterea stabilității macroeconomice a eurozonei, acordându-i-se mai multă putere bugetului european comun. Acesta ar urma să gestioneze mai mult de 1% din PIB-ul țărilor membre ale UE din care circa, în prezent, 50% se alocă subvențiilor pentru agricultură în cadrul ”Politicii Agricole Comune”. În SUA, Bugetul Federal se ridică la 50% din PIB-ul total al țării. Uniunea fiscală ar stimula creșterea ca urmare a orientării fondurilor către acele state în care este cea mai mare nevoie. În principiu, aceste fonduri se opun măsurilor de austeritate extremă care, după cum au arătat experiențe recente, au avut un impact negativ asupra economiei. Rămâne încă în discuție dimensiunea și gradul de extensie a acestei uniuni fiscale.

Conceptul de **uniune fiscală** și politică fiscală reprezintă o arie de cercetare susceptibilă de interpretări multiple. Unii specialiști consideră că acestea reprezintă un set de reguli pentru realizarea unor bugete echilibrate, în timp ce alții (Bargain et al.,2013) înțeleg, pe lângă această interpretare, și toate modalitățile de modificare a taxelor și impozitelor și de a cheltui fondurile la nivel european.

În ultima vreme, președintele Franței Emmanuel Macron și Comisia Europeană promovează ideea unui **ministru de finanțe al UE**, ca element component al integrării care să substituie serviciile și competențele din acest domeniu, disipate între diferite instituții (Comisia Europeană, 2017). Ministrul de finanțe este încă în stadiul de propunere, fără a se fi stabilit care sunt competențele și sarcinile acestuia.

Relevăm că a fost creat Mecanismul de Stabilitate Europeană (European Stability Mechanism – ESM) care dispune de un fond de 500 mild. euro și oferă sprijin țărilor care se confruntă cu dificultăți financiare (de ex. Spania, Cipru și Grecia). Funcționarea eficientă a acestui mecanism se confruntă cu provocări serioase datorită diversității situațiilor și nevoilor financiare ale țărilor membre ale UE.

Una din probleme majore ale Uniunii fiscale este redistribuirea resurselor financiare colectate din impozite în favoarea statelor, regiunilor mai puțin dezvoltate. Țările dezvoltate nu sunt avantajate de un astfel de sistem de redistribuire, creșterea taxării în țările cu venituri relativ mari pentru a fi redistribuite fonduri statelor mai puțin bogate va genera comportamente evazioniste și va dezincentiva munca în aceste țări.

În ceea ce privește **politica de austeritate** vizând tăierea cheltuielilor bugetare și alte măsuri dure legate de îndatorarea statelor, experiența a arătat că impactul acestuia a avut ca rezultantă scăderea PIB și a

investițiilor. Experții sunt de părere că, mai degrabă, politica fiscală va trebui să sprijine cererea internă și investițiile, să fie utilizate pentru a menține încrederea în piață.

O altă direcție a măsurilor de reformare a UME vizează Banca Centrală Europeană (BCE) crearea Uniunii pieței de capital și a Uniunii Europene Bancare.

BCE, ca parte esențială a **sistemului monetar al zonei euro**, este considerată ca fiind lipsită de flexibilitate comparativ cu Federal Reserve și că se aseamănă cu German Bundes Bank în ceea ce privește abilitatea sa de a-și asuma mai multă responsabilitate și a acționa mai curajos în situația crizei financiare internaționale, declanșată în 2008 (Nordman P., 2018). Un alt critic al BCE este Paul Krugman care consideră că ”euro este o construcție fragilă” (shaky construction) și BCE promovează o politică inflexibilă și de austeritate. În acest sens este menționată politica FED care a fost mai flexibilă și a încurajat acordarea de credite, recurgând la ”quantitative easing”.

Uniunea Bancară Europeană, ca factor al unei mai stricte supravegheri a parcurs o serie de etape fără a fi complet funcțională. Principalele bănci în cadrul UE se află în prezent sub supravegherea BCE.

Elementele analizei SWOT la care am făcut referire în acest capitol au un caracter general cu valabilitate quasi comună pentru toate țările actuale sau viitoare membre ale UME. Pentru o mai bună înțelegere și pregătire a aderării la UME este însă nevoie de o particularizare a punctelor tari și slabe, a riscurilor și oportunităților pe termen scurt, mediu și lung pentru fiecare țară și în acest cadru pentru România.

Diversitatea de situații pro și contra aderare la UME a celor 7 țări nemembre, România, Polonia, Cehia, Ungaria, Bulgaria, Croația și Suedia, o vom analiza în continuare, pe baza rezultatelor sondajelor de opinie, pe un eșantion reprezentativ, ținând seama de factori de influență, cum sunt:

- nivelul de informare și cunoaștere în legătură cu UME;

- aspecte și domenii preferate ale companiilor de informare privind aderarea țărilor la UME;

- informare privind cunoașterea numărului de țări membre, a aspectelor și problemelor celor mai importante asupra cărora ar trebui să se concentreze activitățile de informare privind aderarea la euro: a) valoarea unui euro în moneda națională; b) implicații practice ale euro privind salariile și veniturile; c) implicații sociale, economice sau politice ale euro; d) modul în care se va introduce euro în țară și se asigură respectarea regulilor de conversie monetară în euro; e) design-ul bancnotelor și monedelor de euro;

- atitudinea față de aderarea la euro;

- percepția privind gradul de pregătire a țării pentru aderarea la euro;

- efectele pozitive și negative ale introducerii euro pentru economiile naționale;

- stabilirea unor prețuri abuzive și înșelătoare;

- percepția abilității de a manageria conversia monedei naționale în euro;

- pierderea controlului asupra politicii economice.

II. Elemente complementare pe țări la analiza SWOT, privind factorii de influență a aderării la UME, rezultate din analiza sondajului de opinie Flash Eurobarometer 465 din anul 2018

Sondajul de opinie Flash Eurobarometer 465 intitulat ”Introducerea euro în Statele Membre care nu au adoptat încă moneda comună”, publicat în mai 2018, abordează aspecte ale problematicii trecerii la zona euro (Euro Area) a următoarelor țări: Cehia, Ungaria, Polonia, Bulgaria, România, Croația, Suedia.

După cum se poate observa, din această categorie de țări non-euro, membre EU, fac parte atât țări dezvoltate cât și țări emergente, cu niveluri de dezvoltare diferite pentru care nu este stabilită o dată oficială de aderare la EA, deși prin Tratatul de Aderare la UE este prevăzută obligația acestora de a deveni membre ale Uniunii Monetare Europene (UME).

Prezenta analiză abordează problematica procesului de aderare a României la UME, într-un context comparativ cu celelalte țări non membre UME, pe un areal problematic extins asupra căruia ne vom referi

în continuare având la bază rezultatele sondajelor întreprinse în acest domeniu, precum și diferitele opinii existente în literatura de specialitate.

Analiza noastră vizează, în primul rând, gradul de cunoaștere a principalelor probleme ale aderării României la euro, în context comparativ cu celelalte țări membre ale Uniunii Europene dar nemembre ale UME.

Totodată, vom face referiri la particularitățile gradului de percepere și conștientizare a importanței și efectelor trecerii la euro, pe grupe de vârstă, gen, nivel de pregătire și educație, recurgând la mărimile medii pentru cele 7 țări nemembre ale indicatorilor respectivi.

1. Nivelul de informare și cunoaștere

Potrivit Flash Eurobarometer 465, **gradul de informare** cu privire la moneda euro, al eșantionului de respondenți din România, la sondajul efectuat în aprilie 2018, publicat în mai 2018, a fost de 39% în 2007 și a crescut la 46% în anul 2018, ceea ce evidențiază creșterea preocupărilor și interesul în legătură cu posibila aderare a României la moneda unică a UME.

Tabel 1. Mărimea procentuală a ponderii respondenților, total informați (I) și total neinformați (N)

-%-

Țara	Anii									
	2007		2008		2016		2017		2018	
	I*)	N**)	I	N	I	N	I	N	I	N
România	39	59	42	56	40	59	41	58	46	52
Polonia	31	67	3	66	44	53	43	55	48	51
Cehia	48	55	48	50	44	54	48	50	44	54
Ungaria	44	56	37	62	35	64	42	57	43	55
Bulgaria	31	68	39	60	38	61	39	59	44	55
Croația	-	-	-	-	45	54	45	54	47	52
Suedia	-	-	-	-	44	55	43	56	44	54

*) informat; **) neinformat.

Sursa: Flash EuroBarometer 465, aprilie-mai 2018.

Din tabelul 1 rezultă următoarele concluzii:

a. în anul 2018, proporția populației total informată, în legătură cu moneda euro, a fost cuprinsă între 43% și 47% în cele 7 țări analizate, dar în proporții diferite, fiind mai mică decât cea a populației total **neinformată**;

b. în toate țările nemembre ale zonei euro, în perioada 2007-2018, a crescut ponderea populației total informate privind moneda unică euro, ceea ce relevă un grad de cunoaștere mai mare a acestei probleme;

c. în România, ponderea populației total informată a fost, în anul 2018 de 46%, mai mică decât în Polonia (48%) și Croația (47%), dar mai mare decât în restul celorlalte țări;

d. având în vedere prevalența populației neinformate din România, apare necesară intensificarea activităților de informare și **creștere a gradului de cunoaștere** a trecerii la moneda unică euro;

e. în anul 2018 față de 2017, în Polonia, Bulgaria și România, proporția respondenților care se consideră informate în legătură cu moneda unică euro a crescut cu 5 pp.

În ceea ce privește gradul mediu de informare (cunoaștere) pe cele 7 țări privind euro pe sexe, **proporția bărbaților este mai mare**, circa 55% decât a femeilor care este în jur de 40%.

Populația mai tânără și cea cu studii superioare este în medie mai mare cunoscătoare a problemelor euro decât cea mai în vârstă și cu un nivel de educație mai scăzut. Pe categorii de vârstă, gradul de informare a mediei, pentru cele 7 țări analizate, a fost de 51% (la vârsta de 15-24 ani), de 50% (respectiv 25-39 ani), 49% (vârsta 40-59 ani) și 44% pentru cei cu vârsta mai mare de 59 de ani.

Persoanele fizice autorizate și salariații se consideră informați în proporție de 56% și respectiv 54%, comparativ cu 43% în cazul persoanelor slab calificate sau care nu lucrează.

În general, persoanele care se consideră mai bine informate **sunt de acord cu introducerea euro**, în comparație cu cele cu un grad de informare și cunoaștere mai scăzut.

Experiența folosirii euro cash (bancnote/monede), în 2018, a fost în proporție de 75% în România, comparativ cu 91% în Croația, 89% în Suedia, 79% în Cehia și 76% media celor 7 țări. Bărbații folosesc cash în proporție mai mare (79%), față de femei (73%), iar persoanele mai în vârstă utilizează în proporție mai mică cash în euro, comparativ cu grupele mai tinere. Cea mai mare pondere de peste 90% o dețin, în folosirea banilor euro cash, persoanele salariate și cu nivel de educație relativ ridicat, iar cele slab calificate utilizează euro cash, respectiv în proporție de numai 66%.

România deținea **cea mai mare pondere** (79%) în utilizarea monedei euro în țară și străinătate, în anul 2018, în comparație cu Croația (62%), Bulgaria (50%), Polonia (44%), Ungaria (36%), Cehia (26%), Suedia (8%). Aceasta se explică prin faptul că, în România, moneda euro îndeplinește într-o mai mare măsură funcțiile de bani decât în alte țări, în care moneda națională oficială, cu funcțiile de mijloc de plată, circulație, măsurare a valorii și tezaurizare, nu este înlocuită într-o proporție atât de mare la moneda euro. În plus gradul de euroizare a economiei României este cu mult mai mare decât în celelalte țări, ceea ce poate fi considerat un atuu pentru aderarea României la UME.

Utilizarea euro în țară și străinătate diferă în zonele urbane și rurale, dar și în funcție de nivelul de venituri ale diferitelor categorii socio-profesionale.

Instituțiile care se bucură de cea **mai mare încredere** în ceea ce privește cursul valutar al euro sunt: Banca Centrală, instituțiile europene, administrațiile fiscale, asociațiile de consum, autoritățile guvernamentale, naționale sau regionale, băncile comerciale, sindicatele sau organizațiile profesionale, jurnaliștii.

Tabel 2. Procentul de încredere al respondenților în ceea ce privește mărimea cursului de schimb valutar în 2018 (%)

Țara	Banca Centrală Națională	Instituții Europene	Administrații fiscale	Asociații ale consumatorilor	Administrații locale, regionale și guvernamentale	Bănci comerciale	Sindicate, organizații	Ziariști
România	73	59	43	38	38	44	32	39
Media celor 7 țări	74	57	52	49	45	41	33	29
Polonia	74	57	46	45	42	32	32	33
Bulgaria	69	63	49	51	46	47	35	32
Cehia	83	51	64	65	53	59	39	24
Ungaria	68	56	60	55	53	48	33	15
Croatia	45	39	25	52	19	17	21	16
Suedia	89	61	85	56	73	49	41	20

Sursa: Flash EuroBarometer 465, aprilie-mai 2018.

Cea mai mare încredere vizând corectitudinea cursului de schimb valutar respondenți au avut-o, în grade diferite, în Banca Centrală și cea mai redusă în organizațiile sindicale și jurnaliste.

Pe măsură ce vârsta respondenților crește, scade încrederea în Banca Centrală de la 81% pentru grupa de vârstă de 15-24 ani la 70% pentru persoanele cu peste 55 de ani.

În majoritatea cazurilor, încrederea în diferite instituții se mărește pe măsură ce nivelul de educație crește dar cu diferențe între țări.

Respondenții care manifestă o atitudine favorabilă aderării la euro în țara lor au o încredere mai mare în fiecare dintre instituțiile din tabelul 2, ca sursă de informații privind schimbul valutar. În acest context, instituțiile europene se află pe primul loc, ca nivel al încrederii.

2. Cele mai preferate aspecte ale campaniilor de informare, în legătură cu aderarea țării la euro

O serie de probleme legate de complexitatea procesului de aderare și postaderare la moneda euro preferate pentru populație de regulă, un interes egal, cu excepția celor referitoare la felul în care arată bancnotele și monedele de euro.

În general, se consideră ca **prioritare**, în companiile de informare, problemele cu **impact economic, social și politic** ale monedei unice euro și rata de conversie a acesteia, față de moneda națională.

Tabel 3. Aspectele prioritare, esențiale pe care ar trebui să le aibă în vedere companiile de informare privind impactul ratei de conversie a monedelor naționale în euro (%)

Țara	Valoarea unui euro în moneda națională	Implicațiile practice ale euro privind salariile și veniturile	Implicații sociale, economice sau politice ale euro	Modul în care se va introduce euro în țară	Cum se asigură respectarea regulilor de conversie monetară în euro	Cum arată bancnotele și monedele de euro
România	69	71	71	71	71	53
Media celor 7 țări	78	78	77	77	74	58
Polonia	83	82	81	78	75	61
Cehia	90	89	88	90	87	69
Bulgaria	82	81	80	81	80	66
Ungaria	78	75	78	75	71	64
Suedia	65	71	73	72	69	45

Sursa: Flash EuroBarometer 465, aprilie-mai 2018.

Pentru România, are o mai mică importanță valoarea unui euro în lei, față de celelalte 4 categorii de impact care, în mare măsură, depind de rata de conversie a leului în euro.

Femeile sunt în mai mare măsură interesate de aspectul bancnotelor și monedelor de euro decât bărbații (61% față de 54%), iar diferențele de gen la celelalte categorii de impact al aderării la euro sunt neesențiale.

Grupele de respondenți mai în vârstă și-au manifestat preocuparea față de implicațiile de natură practică (economice, sociale, politice etc.), în comparație cu cei tineri.

O importanță deosebită o are nu numai vârsta dar și nivelul de educație și pregătire profesională superioară pentru aspectele de natură practică, cu influență economică, politică și socială.

În România, o proporție de 64% dintre persoanele intervievate, în cadrul eșantionului, sunt familiarizate cu modelele (design-ul) bancnotelor în euro, în celelalte țări această proporție fiind mai mică și anume 58% în Croația; 51% în Suedia, între 45%; 40% în celelalte țări analizate, nivelul mediu fiind de 47%.

Nivelul de familiarizare cu bancnotele și monedele de euro diferă, în funcție de grupul de vârstă, gen și nivelul de educație. La monede, de exemplu, mai puțin familiarizate sunt persoanele cu vârsta între 15 și 24 de ani și cele care au peste 55 de ani.

3. Activități de informare privind numărul țărilor care fac parte din Zona Euro

Dintre cele 4 opțiuni posibile pentru numărul de țări membre ale zonei Euro (6,13,19,28 de țări), răspunsul corect fiind 19 țări, în cazul respondenților români doar o proporție de 25% au dat răspunsul corect, în timp la celelalte țări proporția respectivă a fost de: 32% - media celor 7 țări; 45% - Suedia; 41% - Ungaria; 37% - Croația; 36% - R.Cehă; 31% - Bulgaria; 29% - Polonia.

Gradul de cunoaștere de către respondenți, la această întrebare, evidențiază **poziționarea României pe ultimul loc** ceea ce indică vulnerabilitatea existentă unui mare număr de votanți în **necunoștință de cauză**, vizând aderarea României la moneda euro, ceea ce impune intensificarea activităților în ceea ce privește educația și nivelul de cunoaștere în acest domeniu.

Bărbații au dat un răspuns corect într-o mai mare proporție decât femeile și persoanele cu un nivel de educație mai redus (persoane cu nivel scăzut de calificare și șomerii.

Aspectele și problemele cele mai importante asupra cărora ar trebui să se concentreze activitățile de informare privind aderarea la euro

Cea mai mare parte a respondenților din cele 7 țări analizate au considerat că **designul bancnotelor și monedelor, valoarea de schimb și etapele procesului de aderare** reprezintă componentele esențiale ale campaniilor de informare. Ca magnitudine a importanței, cel trei componente sunt destul de apropiate.

În Bulgaria și România, în anul 2018, față de 2017, ponderea intervievaților care acordă prioritate informațiilor în legătură cu **implicațiile practice** ale euro și cu felul în care arată bancnotele și monedele de euro a crescut sensibil (13 pp), precum și informațiile privind valoarea unui euro (11 pp), modul în care se va asigura respectarea regulilor de conversie (11 pp).

Tabel 4. Probleme şi aspecte esenţiale, referitoare la euro care ar trebui oferite cu prioritate de către campaniile de informare privind conversia monedelor naţionale în euro (%)

Probleme şi aspecte	Anul	Total	România	Bulgaria	Cehia	Croaţia	Ungaria	Polonia	Suedia
1.Valoarea unui euro în moneda ţării	2017	73	57	71	85	68	80	78	71
	2018	78	69	82	90	72	78	83	65
2.Implicaţii practice ale euro privind salariul şi contul bancar propriu	2017	73	59	68	84	57	75	79	70
	2018	78	71	81	89	61	75	82	71
3.Implicaţiile economice, sociale şi politice ale euro	2017	73	58	71	85	51	77	78	76
	2018	77	71	80	88	47	78	81	73
4.Modul în care euro va fi introdus in ţară	2017	71	58	73	88	51	74	72	75
	2018	77	71	81	90	55	75	78	72
5.Cum se va asigura respectarea regulilor de conversie a monedei naţionale în euro?	2017	68	55	69	82	61	70	70	71
	2018	74	71	80	87	59	71	75	69
6. Cum vor arăta bancnotele şi monedele în euro?	2017	55	47	43	66	28	61	59	46
	2018	58	53	66	69	21	64	61	45
7.Nu ştiu	2018	3	6	3	1	6	3	3	4

Sursa: prelucrare pe baza datelor prezentate de Flash EuroBarometer 465, aprilie-mai 2018.

În cazul României, în plus faţă de menţiunile anterioare, evidenţiem că se acordă în aceeaşi proporţie prioritară de 71% la problemele şi aspectele 2, 3, 4, şi 5, cu câte 2 pp în plus faţă de media totală a celor 7 ţări analizate de 69%.

În activităţile de informare ce se vor desfăşura în România, fără îndoială, este nevoie să se ţină seama de cele 4 priorităţi menţionate, astfel încât să crească nivelul de cunoaştere, încredere şi capacitatea de analiză a populaţiei.

Din punct de vedere socio-demografic, este probabil ca femeile să se gândească în proporţie mai mare decât bărbaţii la designul bancnotelor şi monedelor de euro, diferenţele de gen, la celelalte priorităţi, fiind aproape neglijabile.

Segmentele populaţiei cu vârsta de peste 55 de ani şi cei care au vârsta cuprinsă între 15 şi 24 de ani şi între 25 şi 39 de ani ca priorităţi, se gândesc în proporţii mai mari la implicaţiile practice economico-sociale şi politice ale introducerii monedei unice.

În general, se constată că persoanele care sunt mai bine informate în legătură cu problemele şi implicaţiile euro, au o atitudine pozitivă faţă de euro, comparativ cu cele mai puţin informate care au o părere negativă cu privire la implicaţiile introducerii monedei euro. Tocmai din acest motiv, activitatea de informare trebuie intensificată în cadrul persoanelor mai puţin informate şi cu un niveluri de educaţie relativ redus.

Tabel 5. Măsura în care diferitele acţiuni posibile ale campaniei de informare privind schimbarea monedei naţionale în euro sunt considerate ca esenţiale (răspunsuri multiple, posibile în %)

Categorii de acţiuni ale campaniei de informare	Anul	Ţările							
		Total	România	Bulgaria	Cehia	Croaţia	Ungaria	Polonia	Suedia
1. Expunerea dual a preţurilor în magazine (monedă naţională şi euro)	2017	74	74	70	78	72	86	69	76
	2018	77	84	78	78	76	83	72	74
2. Pe internet/social media	2017	63	49	56	71	51	69	67	68
	2018	67	59	67	73	49	64	72	63
3. Prezentare dual a sumelor pe documentul de plată (electricitate, gaze)	2017	64	67	64	69	64	81	55	64
	2018	66	76	75	68	67	77	57	62
4. Reclama TV	2017	60	60	60	52	62	62	61	58
	2018	66	70	68	60	57	61	70	54
5. Expunere dual pe alte documente (pay, ship)	2017	60	64	57	63	57	77	54	58
	2018	64	73	68	61	63	73	58	58
6. Reclamă în ziare	2017	54	51	39	52	44	47	61	58
	2018	59	56	54	57	43	41	69	53
7. Reclamă la radio	2017	51	49	42	46	42	49	61	40
	2018	56	57	57	47	42	47	68	36
8. Broşuri, pliante	2017	46	45	39	49	34	37	50	44
	2018	49	50	50	53	32	35	55	44
9. Nu ştiu	2018	4	4	4	6	6	3	5	5
	-	-	-	-	-	-	-	-	-

Sursa: prelucrare pe baza datelor prezentate de Flash EuroBarometer 465, aprilie-mai 2018..

Exceptând broşurile şi pliantele, respondenţii consideră că toate celelalte categorii de acţiuni ale campaniei de informare sunt considerate importante, dar în grade apropiate.

În România, 84% din intervievaţi consideră că **prezentarea (afişarea) dual** a preţurilor, în lei şi euro în magazine, reprezintă cea mai importantă cale de informare a populaţiei, proporţia în alte ţări, exceptând Ungaria, fiind mai mică în jurul mediei de 77%. În anul 2018, faţă de 2017, în România a crescut proporţia, diferită destul de mult la toate categoriile de acţiuni (1, 2, 3, 4, 5, 6, 7, 8).

Din punctul de vedere socio-demografic, subliniem că femeile este posibil, mai mult decât bărbaţii, să considere esenţială afișarea dublă a preţurilor în magazine, faţă de alte categorii de informaţii. Respondenţii tineri sunt înclinaţi să se informeze prin reclame pe internet şi social media.

4. Atitudinea faţă de aderarea la moneda euro

La întrebarea dacă trecerea la moneda euro în România și celelalte țări va avea un impact total **pozitiv** sau **negativ**, în anii 2007 și 2018, proporţia respondenţilor a fost destul de diferită atât ca mărime cât și ca tendință.

Tabel 6. Ponderea răspunsurilor pozitive și negative privind impactul trecerii la euro (%)

Anii	Total impact posibil	Ţările					
		România	Bulgaria	Cehia	Croaţia	Ungaria	Polonia
2007	pozitiv	61	35	47	-	48	56
	negativ	20	33	34	-	22	28
2008	pozitiv	62	42	46	-	50	50
	negativ	18	26	34	-	24	34
2009	pozitiv	64	41	39	-	52	51
	negativ	17	31	45	-	26	35
2010	pozitiv	62	43	37	-	51	42
	negativ	20	37	51	-	27	40
2011	pozitiv	53	45	28	-	46	41
	negativ	33	40	63	-	36	51
2012	pozitiv	51	45	30	-	59	46
	negativ	35	43	64	-	27	44
2013	pozitiv	56	46	28	-	51	43
	negativ	34	40	62	-	33	47
2014	pozitiv	62	50	32	44	60	51
	negativ	28	37	58	45	26	38
2015	pozitiv	60	53	38	42	61	53
	negativ	27	30	53	47	26	34
2016	pozitiv	60	48	39	37	61	54
	negativ	30	36	53	49	28	35
2017	pozitiv	63	56	41	43	64	56
	negativ	24	26	52	41	24	33
2018	pozitiv	62	58	44	42	64	56
	negativ	26	28	47	47	21	35

Sursa: prelucrare pe baza datelor prezentate de Flash EuroBarometer 465, aprilie-mai 2018..

În anul 2018, România se caracteriza prin **cea mai ridicată pondere a răspunsurilor vizând impactul total pozitiv de 62%** dintre respondenți (tabel 6), cea mai redusă pondere fiind înregistrată, în același an, în R.Cehă (44%), Croația (40%), Polonia (35%). Acest procentaj ridicat al posibilului impact pozitiv al aderării României la euro, parțial, poate fi explicat prin slaba cunoaștere a efectelor mai puțin favorabile care ar putea fi generate sau prin efectul de imitație sau de ”turmă” (gregar).

Cei care considerau ca va fi posibil un impact total negativ al aderării României la euro, în perioada analizată, s-au înscris în intervalul cu limitele de 17%-35%.

Este interesant cazul R.Cehe și al Poloniei unde, pe parcursul perioadei 2007-2018, au avut loc alternanțe ale opiniilor între nivelurile maxime negative și pozitive ale impactului posibil al aderării.

Sub aspect socio-demografic, semnalăm că respondenții cu vârsta între 15-24 ani considerau, în proporție de peste 65%, că euro ar putea avea efecte pozitive, ca de altfel și cei cu un nivel de educație relativ ridicat și mai bine informați.

Opinia favorabilă privind adoptarea euro, în țările analizate, depășea puțin peste 51% din răspunsurile intervievaților, în condițiile unei variații sensibile inter-țări a distribuției procentuale a răspunsurilor mai degrabă în favoarea introducerii sau cei care erau adepții opiniei ”mai degrabă împotriva introducerii euro”.

Proporția celor în favoarea introducerii euro în Polonia, România și Suedia a crescut, în ultimii ani, cu 5 pp și în Croația a scăzut în aceeași proporție. Și în România se constată, în ultimii ani, o reducere a proporției cu 8 pp a respondenților care sunt **foarte favorabili introducerii euro**. Această schimbare de opinie, credem că, a fost generată de impactul crizei economice și financiare declanșate în anul 2008, ca și de criza datoriilor suverane ale unor țări membre ale UME.

5. Percepția privind gradul de pregătire a țării pentru aderarea la euro

Una din marile probleme ale țărilor nemembre UME este stabilirea unei date de aderare la zona euro care, după cum se știe, este condiționată de atingerea unor criterii de convergență nominală dar și reală, ca garanție a respectării unor cerințe ale macroechilibrelor economico-financiare și de performanță pentru întreaga comunitate de state membre. Aceste criterii pornesc și de la necesitatea evitării transmiterii unor

efecte economico-financiare negative de la țări subperformante către țări membre performante, având în vedere libertatea de circulație a fluxurilor financiare și de resurse umane și capital în interiorul UE.

În general, proporția intervievaților din țările analizate care sunt de părere că țara lor este pregătită să adere la Zona Euro a rămas în întreaga perioadă la niveluri relativ scăzute, constatându-se o diferențiere inter-țări și între ani. În medie, o proporție de 21% în anul 2018 revine percepția unei pregătiri slabe.

Tabel 7. Gradul de pregătire pentru aderarea la euro, în anii 2015-2017 a celor 7 țări analizate, după ponderea răspunsurilor ”Da”, ”Nu” și ”Nu știu”

Țara	Ponderea % răspunsurilor:			Țara	Ponderea % răspunsurilor:		
	Da	Nu	Nu știu		Da	Nu	Nu știu
Total țări				**Croația**			
anii 2015	17	79	4	anii 2015	20	77	3
2016	17	79	4	2016	17	78	5
2017	19	77	4	2017	23	72	5
2018	21	74	5	2018	22	74	4
România				**Ungaria**			
anii 2015	27	69	4	anii 2015	17	79	4
2016	25	73	2	2016	20	77	3
2017	24	72	4	2017	22	74	4
2018	26	69	5	2018	21	73	-
Bulgaria				**Polonia**			
anii 2015	25	75	5	anii 2015	11	86	3
2016	18	77	5	2016	11	84	5
2017	19	76	5	2017	14	81	5
2018	22	74	4	2018	17	78	5
R.Cehă				**Suedia**			
anii 2015	15	82	3	anii 2015	21	76	3
2016	20	76	4	2016	19	78	3
2017	19	76	5	2017	23	74	3
2018	22	74	4	2018	27	69	4

Sursa: prelucrare pe baza datelor prezentate de Flash EuroBarometer 465, aprilie-mai 2018..

În România și Suedia, ponderea răspunsului ”Da” de 26% și respectiv 27%, în privința percepției gradului de pregătire a fost cea mai ridicată, față de celelalte țări, din care în Polonia constatându-se cel mai redus nivel de 17%.

În toate țările însă, a prevalat răspunsul ”Nu” cu o pondere de peste 69%, cele mai ridicate niveluri înregistrându-se în cazul Poloniei (78%) și de respectiv 74% în celelalte țări. În România și Suedia ponderea respectivă a fost de 69% în anul 2018. Evidențiem totuși că, ponderea răspunsurilor ”Nu” privind gradul de pregătire pentru aderare a scăzut, în 2018 față de 2015, în România (2 pp), Bulgaria (1 pp), R.Cehă (8 pp), Croația (3 pp), Ungaria (6 pp), Polonia (8 pp), Suedia (7 pp).

Bărbații, în proporție mai mare decât femeile, sunt înclinați să spună că țara lor este pregătită să adere la euro, ca de altfel și tinerii cu vârste cuprinse între 15-24 de ani. Dimpotrivă, persoanele cu peste 55 de ani au ales răspunsul ”nu”, într-un procent mai mare decât celelalte grupe de vârstă.

6. Efectele introducerii euro pentru economiile naționale

Cunoașterea într-o măsură cât mai complexă și cuprinzătoare a consecințelor economice sociale, politice, tehnologice, geopolitice și ambientale pe care le are trecerea la moneda unică, în țările analizate, reprezintă un domeniu de interes major, în condițiile în care se constată o diversitate mare de opinii care, în timp, au suferit modificări sensibile trecându-se de la prevalența procentuală a celor care au spus inițial că aderarea va avea ”**consecințe total pozitive**” la prevalența celor care au susținut ulterior că, dimpotrivă, aceasta are consecințe total negative.

Total 8. Evoluția ponderii respondenților care consideră că integrarea în Zona Euro are ”consecințe total pozitive” (Poz) ”consecințe total negative” (Neg) în perioada 2004-2018 (%)

Anii	România		Bulgaria		R.Cehă		Croația		Ungaria		Polonia		Suedia	
	Poz	Neg	Poz	Neg	Poz	Neg	Poz	Neg	Poz	Neg	Poz	Neg	Poz	Neg
2004	-	-	-	-	45	42	-	-	54	32	41	44	-	-
2005	-	-	-	-	35	47	-	-	51	35	37	46	-	-
2006	-	-	-	-	50	35	-	-	54	27	52	35	-	-
2007	67	18	44	39	46	40	-	-	48	38	53	32	-	-
2008	64	21	48	37	45	44	-	-	44	43	47	39	-	-
2009	62	25	46	35	41	46	-	-	49	37	52	37	-	-
2010	56	34	48	42	38	57	-	-	46	36	43	45	-	-
2011	49	43	55	36	20	77	-	-	39	47	36	59	-	-
2012	49	44	36	55	18	77	-	-	43	44	39	55	-	-
2013	51	42	39	54	23	72	-	-	42	46	36	58	-	-
2014	57	37	36	56	26	69	40	53	51	41	40	54	-	-
2015	54	39	40	53	26	70	38	53	50	44	39	54	31	62
2016	51	44	37	55	30	66	37	54	45	47	37	58	31	63
2017	49	43	41	51	32	62	40	50	48	44	43	52	36	55
2018	54	40	43	51	33	64	37	57	51	38	47	49	38	54

Sursa: prelucrare pe baza datelor prezentate de Flash EuroBarometer 465, aprilie-mai 2018..

Datele din tabelul 8 evidențiază următoarele concluzii principale:

a. în R.Cehă, Bulgaria și Croația, ponderea respondenților vizând consecințele negative ale trecerii la euro este mai mare decât cea a respondenților care opinează pentru efecte pozitive;

b. în România și Ungaria ponderea susținătorilor **consecințelor pozitive** este mai mare ca pondere decât celor cu răspunsuri negative, cu deosebirea că în țara noastră s-a menținut constant acest raport de-a lungul întregii perioade, în timp ce în Ungaria, în perioada inițială, raportul a fost invers, în sensul că, pe primul loc, se situau **consecințele negative**;

c. în Polonia, în perioada 2004-2010, a dominat opinia prevalenței consecințelor pozitive, după care, în perioada 2011-2018, cea mai mare pondere au avut-o susținătorii consecințelor negative;

d. evoluția oscilatorie și cu mari amplitudini, de la un an la altul, a raportului dintre procentajele consecințelor negative și pozitive, în cazul unor țări cum ar fi Bulgaria, Ungaria și Polonia, ar putea fi explicate atât de factori obiectivi (perioada de acomodare cu rigorile comunitare; impactul unor factori externi cât și de factori subiectivi legați de cursuri schimbător al politicilor vis-à-vis de politicile comunitare);

e. începând cu anul 2007, respondenții care opinează pentru efectele negative ale adoptării euro și-au mărit ponderea cu 7 pp în Croația, 6 pp în Ungaria în timp ce în România și Polonia a crescut ponderea susținătorilor efectelor pozitive cu 6 pp și respectiv 4 pp.

7. Stabilirea unor preţuri abuzive şi înşelătoare

Reacţia consumatorilor la noile preţuri stabilite în euro poate îmbrăca cele mai diferite forme de manifestare, în funcţie de raportul veniturilor şi nivelul preţurilor relative în noua monedă.

Astfel, potrivit sondajului UE menţionat la începutul cercetării, pe total ţări analizate, 71% dintre respondenţi sunt îngrijoraţi în privinţa practicării unor **preţuri abuzive, incorecte** în perioada de tranziţie la moneda unică.

Această îngrijorare în România a crescut treptat de la 51% în 2007 la 71% în anul 2018, ceea ce este explicat de recrudescența unor fenomene și procese abuzive în economie descoperite cu un decalaj de timp relativ mare astfel că, populația a devenit mult mai prudentă și circumspectă vizavi de posibilele comportamente abuzive, nontransparente, legate de economia subterană. Aceleași ponderi ca în România ale acordului total față de prețurile abuzive se observă, în 2018, în R.Cehă și Polonia; în Bulgaria au fost încă și mai ridicate (81%), în timp ce în Suedia și Ungaria s-au redus.

În medie, femeile par a fi mai îngrijorate decât bărbații, față de prețurile abuzive și incorecte (73% față de 68%). În cazul persoanelor mai în vârstă (peste 65 de ani), ponderea răspunsurilor ”total de acord” este 68%, în comparație cu grupa de vârstă 18 și 25 de ani care deținea la acest răspuns o pondere de 74%.

Persoanele care au avut o atitudine negativă față de introducerea monedei unice au manifestat o pondere mai mare a îngrijorării față de prețurile abuzive (80%), în comparație cu cele care au avut o opinie pozitivă (65%).

Tabel 9. Ponderea respondenţilor care sunt total de acord sau în total dezacord cu îngrijorarea faţă de preţurile abuzive, în perioada de trecere la euro (changeover), în perioada 2004-2018

Anii	Țările													
	România		Bulgaria		Republica Cehă		Croația		Polonia		Ungaria		Suedia	
	acord total	dezacord total	acord total	dezacord total	acord total	dezacord total	acord total	dezacord total	acord total	dezacord total	acord total	dezacord total	acord total	dezacord total
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	71	27	-	-	75	24	71	26	-	-
2007	51	41	82	14	67	29	-	-	74	21	75	20	-	-
2008	55	39	78	17	65	32	-	-	84	15	71	24	-	-
2009	58	36	76	18	72	26	-	-	80	18	77	48	-	-
2010	61	35	74	22	74	22	-	-	82	14	70	26	-	-
2011	66	29	78	19	77	22	-	-	80	19	68	27	-	-
2012	65	32	79	19	80	18	-	-	79	20	64	32	-	-
2013	66	30	77	20	74	24	-	-	78	21	66	31	-	-
2014	65	32	78	20	76	22	75	23	74	25	64	34	-	-
2015	73	22	84	14	76	22	78	19	74	24	69	28	65	33
2016	69	28	78	20	75	23	81	16	77	22	66	29	63	36
2017	66	30	81	17	73	24	82	15	74	24	67	30	59	39
2018	71	24	81	17	72	26	83	15	70	28	66	28	59	39

Sursa: prelucrare pe baza datelor prezentate de Flash EuroBarometer 465, aprilie-mai 2018..

Pericolul unor prețuri abuzive sau incorecte, odată cu trecere la euro este exprimat de majoritatea respondenților din țările analizate, ținând seama că trecerea la euro în marea majoritate a cazurilor, în primi ani după aderare a fost însoțită și de inflație în grade diferite în țările respective.

8. Percepția abilității de a manageria conversia monedei naționale în euro

Abilitatea, competența și eficiența de adaptare la conversia monedelor naționale în euro presupune un anumit nivel de cunoaștere și acomodare a populației care va trebui să gândească în prețurile exprimate în noua monedă și să facă o serie de comparații privind raportul prețurilor noi față de cele exprimate în monedele naționale. Această adaptare la noile condiții are și o latură practică (learning by doing), în încercarea consumatorilor (cumpărătorilor) de maximizare a utilității marginale a bunurilor și serviciilor pe care le achiziționează, dar și în ceea ce privește optimizarea costurilor operaționale și a investițiilor, pe diferite orizonturi de timp.

Tabel 10. Capacitatea personală de a se adapta la înlocuirea monedei naționale cu euro

Țările/Anii		Acord total	Tinde spre acord	Tinde spre dezacord	Dezacord total	Nu știu	Țările/Anii		Acord total	Tinde spre acord	Tinde spre dezacord	Dezacord total
Total	2015	40	41	10	7	2	Croația	2015	44	40	8	6
	2016	40	39	10	8	3		2016	40	48	6	2
	2017	43	37	1	8	3		2017	43	44	6	5
	2018	40	39	10	8	3		2018	44	40	8	6
România	2015	55	34	4	6	1	Polonia	2015	28	48	14	8
	2016	55	28	4	11	2		2016	33	43	14	8
	2017	56	28	5	7	4		2017	35	41	12	11
	2018	44	40	6	6	4		2018	34	41	12	11
Bulgaria	2015	42	40	8	7	3	Ungaria	2015	46	38	9	4
	2016	36	42	9	11	2		2016	34	45	11	5
	2017	37	42	9	9	3		2017	41	39	10	5
	2018	40	40	7	11	2		2018	41	41	9	4
Republica Cehă	2015	24	47	17	11	1	Suedia	2015	64	32	5	6
	2016	25	45	16	11	3		2016	69	21	5	3
	2017	32	43	12	10	3		2017	68	19	6	5
	2018	29	44	15	10	2		2018	70	18	5	5

Sursa: prelucrare pe baza datelor prezentate de Flash EuroBarometer 465, aprilie-mai 2018..

La majoritatea țărilor, în perioada 2015-2018, se observă o quasi similitudine a structurii procentuale a răspunsurilor în sensul că ”acordul total” și ”tinde spre acord” dețin ponderile cele mai mari, față de cele ale celorlalte trei categorii de răspunsuri ”tinde spre dezacord”, ”dezacord total” și ”nu știu”.

În cei patru ani analizați, se constată ponderi mai mari la răspunsul ”acord total” față de ”tinde spre acord”, existând și cazuri în care situația este inversă. Aceasta presupune că respondenții ar reuși să se adapteze relativ rapid cu noua monedă, mulți dintre aceștia folosind euro înainte de introducerea acestuia în economia națională.

În anul 2018, în România, Bulgaria, Croația și Ungaria circa 40% din respondenți s-au exprimat în favoarea răspunsului ”acord total”; ponderea respectivă era mai mare în Suedia (70%) și mai mică în Polonia și R.Cehă (în jur de 30%-34%), ceea ce reflectă probabilitatea unui grad diferit de adaptare la prețurile în moneda nouă pentru care desigur se manifestă și atitudini negative sau pozitive diferite.

Cele mai reduse ponderi în ordine descrescătoare în medie se constată la răspunsurile ”tinde spre dezacord” (în jur de 10%), dezacord total (7%-8%) și ”nu știu” (2%-3%).

Bărbații par a fi mai ușor adaptabili decât femeile la prețurile și operațiunile în noua monedă euro (83% față de 75%), iar generațiile tinere dar și cel vârstnice sunt mai greu adaptabile la înlocuirea monedelor naționale decât cele cu vârstele cuprinse între 25-39 de ani (85%) și 40-54 de ani.

O diferență de adaptabilitate la euro se observă și în ceea ce privește nivelul de pregătire profesională, informare și educație al respondenților, în sensul că este cu mult mai ușoară adaptarea pentru persoanele înalt calificate și bine informate.

Gradul de adaptabilitate la euro este cu atât mai mare cu cât respondenții au o atitudine pozitivă față de efectele favorabile pe care le așteaptă de la trecerea la euro. Cei cu o atitudine nefavorabilă monedei euro se vor adapta cu mult mai greu.

9. Pierderea controlului asupra politicii economice

Adoptarea euro ridică, pentru fiecare stat-națiune-membru al UME, o problemă foarte sensibilă, insuficient cercetată, fundamentată și acceptată și anume cea a preluării unei părți a controlului asupra politicilor economice naționale la nivel comunitar. Renunțarea la dreptul suveran de emisiune și preluarea unor prerogative în materie decizională, cunoașterea reacției unui eșantion reprezentativ al populației la această schimbare de drept exclusiv suveran este foarte importantă în asigurarea eficientă procesului de trecere la euro.

Tabel 11. Ponderea răspunsurilor ”acord total” și ”dezacord total” în legătură cu cedarea unei părți a dreptului suveran național de emisiune și control monetar (%)

Anii	România		Bulgaria		Republica Cehă		Croația		Polonia		Ungaria		Suedia	
	Acord total	Dezacord total	Acord total	Dezacord total	Acord total	Dezacord total	Acord total	Dezacord total	Acord total	Dezacord total	Acord total	Dezacord total	Acord total	Dezacord total
2004	-	-	-	-	30	50	-	-	36	48	23	67	-	-
2005	-	-	-	-	32	44	-	-	35	44	25	63	-	-
2006	-	-	-	-	61	29	-	-	30	56	19	69	-	-
2007	18	62	33	40	38	47	-	-	28	58	28	61	-	-
2008	19	62	28	46	38	52	-	-	36	53	24	62	-	-
2009	25	56	30	48	37	51	-	-	30	58	26	61	-	-
2010	27	55	30	50	50	45	-	-	36	49	28	61	-	-
2011	42	48	44	40	52	45	-	-	41	56	39	53	-	-
2012	44	49	46	46	56	42	-	-	40	56	36	60	-	-
2013	46	45	43	48	54	42	-	-	44	51	36	58	-	-
2014	42	50	47	45	56	42	47	48	39	57	33	63	-	-
2015	48	41	45	44	52	43	44	50	44	50	32	62	71	26
2016	49	44	54	38	54	43	52	42	45	52	35	58	67	30
2017	47	43	51	40	50	45	52	40	42	52	36	58	66	31
2018	49	42	42	49	49	47	51	44	39	56	30	63	62	34

Sursa: prelucrare pe baza datelor prezentate de Flash EuroBarometer 465, aprilie-mai 2018..

În România, analiza pe baza datelor de sondaj, în perioada 2007-2018, proporția respondenților care și-au exprimat ”acordul total” cu pierderea controlului asupra politicii economice a crescut treptat de la 18% în 2007 până la 49% în anul 2018, față de cei care și-au exprimat dezacordul total a căror pondere a scăzut de la respectiv 62% la 42%. Această schimbare radicală de opinie în România, în ceea ce privește efectul probabil al trecerii la euro asupra elaborării și implementarea politicilor economice naționale poate fi explicată prin impactul performanțelor țărilor membre ale țărilor aparținând UME dar și prin creșterea nivelului de cunoaștere și informare privind impactul integrării și al monedei unice.

Această problemă a pierderii controlului asupra politicilor naționale economice sau de altă natură nu trebuie interpretată exclusiv printr-o obedienţă totală a țărilor membre față de deciziile la nivel supranațional ci mai degrabă va trebui să reprezinte un parteneriat și o coordonare pe trepte superioare ale principiilor subsidiarității, care necesită înalt profesionalism și o înaltă capacitate de negociere.

În Bulgaria, R.Cehă și Croația, ponderea respondenților care și-au exprimat ”acordul total”, în anul 2018, a fost mai mare decât a celor care au preferat ”dezacordul total”. În Polonia și Ungaria situația a fost inversă în sensul că ponderea celor care au optat pentru ”dezacordul total” a fost cu mult mai mare decât a celor favorabile ”acordului total”. Diferențe de pondere dintre ”acordul total” și ”dezacordul total”, în anul 2018, a fost de: 7 pp în România; +9 pp în Bulgaria; +2pp în R.Cehă; +7pp în Croația etc.

Concluzii și remarci finale

Rezultatele analizei datelor ”Flash Eurobarometer 465”, aprilie-mai 2018, elaborat în cadrul Directoratului General pentru Comunicație al UE pot fi sintetizate concluzii și remarci finale, pe care le prezentăm în continuare.

În cadrul celor 7 țări investigate privind efectele economico-sociale ale aderării la UME, pe lângă o serie de asemănări și deosebiri inter-țări, se poate remarca trendul de creștere a nivelului de informare, cunoaștere și implicare în abordarea problemelor teoretice și practice ale domeniului și ceea ce semnifică un proces economico-social marcat de interes major din partea membrilor societății.

- Cea mai mare parte a respondenților au folosit, în țară și străinătate, bancnote și monede euro, România situându-se pe primul loc, în ceea ce privește mărimea ponderii respondenților, a creșterii gradului de euroizare a economiei, chiar dacă în ultimii ani se remarcă o slabă tendință de deeuroizare.

- Cea mai mare parte a respondenților din toate țările analizate au cea mai mare încredere în Băncile Naționale Centrale cu privire la campania de informare referitoare la conversia valutelor naționale în euro, cea mai mică încredere o au în informațiile primite de la ziare.

- O proporție de 77% din respondenți consideră că prezentarea (afișarea) dublă a prețurilor în moneda națională și euro este esențială pentru acomodarea și fundamentarea deciziilor, în contextul monedei unice.

- Cea mai mare parte a intervievaților din țările analizate consideră că euro a avut efecte favorabile în țările care sunt membre ale UME, în România proporția acestui răspuns fiind de 62% față de răspunsurile totale. Excepție fac respondenții din R.Cehă și Croația care consideră că impactul euro a fost negativ.

- Respondenții care s-au exprimat în favoarea introducerii euro în țara lor au fost între limita maximă de 69% în România și limita minimă de 33% în R.Cehă. În Bulgaria și Ungaria majoritatea și-au exprimat acordul cu introducerea euro în timp ce în Croația, Polonia și Suedia aceștia au reprezentat o minoritate.

- Bărbații (57%) au fost de acord cu introducerea euro, în timp ce femeile au reprezentat o minoritate (45%);

- Pe ansamblu țărilor cercetate, circa 1 din 5 respondenți (21%) consideră că țara lor este pregătită să adere la euro, în Suedia această proporție fiind de 27% și în Polonia de numai 17%.

- În România 54% din numărul total al respondenților și respectiv 51% în Ungaria consideră că aderarea la UME ar avea efecte pozitive, iar 64% în R.Cehă, 57% în Croația și 54% în Suedia consideră că aceasta ar avea un impact negativ.

- Introducerea monedei euro, în plan personal, ar avea efecte mai degrabă pozitive decât negative în România (58%) și Ungaria (54%), în timp ce în R.Cehă intervievații se pronunțau în proporție de 60% în direcția efectelor negative.

- În majoritatea țărilor, exceptând România, predomină opinia potrivit căreia euro ar trebui introdus cât mai târziu posibil, cele mai mari ponderi ale răspunsurilor în acest sens fiind înregistrate în R.Cehă (63%) și Suedia (60%).

- În Bulgaria și Croația, 50% din respondenți consideră că într-un interval de 5 ani ar fi posibilă trecerea la euro, în timp ce în celelalte țări se apreciază că respectiv în 10 ani, iar în Suedia 48% estimează că niciodată.

- În proporții situate între limitele de 74%-51%, țările consideră că introducerea euro va avea impact inflaționist determinat de creșterea prețurilor.

- Înlocuirea monedelor naționale cu moneda unică euro nu va ridica probleme cu adaptarea în proporție de 70% în Suedia, comparativ cu 29% în R.Cehă și respectiv 34% în Polonia.

- Toate țările analizate, mai puțin Polonia și Ungaria, consideră că apartenența la UME va determina o scădere a controlului țării asupra politicilor sale economice dar și asupra identității naționale.

- Sondajele de opinie în unele țări, de exemplu, în Polonia, în problema aderării la UME, acordă o importanță deosebită consultării agenților economici, pe categorii dimensionale, pe bază de scoruri în ceea ce privește **impactul economico-financiar** al introducerii euro.

Se consideră că acest domeniu de activitate în funcție de mărimea diferitelor categorii de agenți economici reprezintă un important factor pentru luarea unei decizii bine fundamentate referitor la trecerea la euro.

Cu titlu de exemplu, reproducem machetele 1 și 2 pentru sondajele opiniei agenților economici începând cu 49 salariați până la peste 499 salariați.

Macheta 1. Scoruri medii pe categorii de răspunsuri, după numărul de angajați ai întreprinderilor

Beneficii legate de aderarea României la zona euro și poziția competitivă a întreprinderilor	**Total**	**<49**	**<50-99**	**100-249**	**250-499**	**>499**
1.Reducerea riscului ratei de schimb valutar prin introducerea monedei unice - euro						
2.Reducerea costurilor tranzacționale inclusiv la schimbul valutar						
3.Reducerea costurilor de aprovizionare datorită transparenței mai bune a pieței și a unei mai bune comparabilități a ofertelor						
4.Stabilirea de contracte noi și de condiții comerciale mai bune cu alte companii ale țărilor din zona euro						
5.Creșterea capitalului disponibil, adică creșterea bunurilor financiare și non financiare în posesie, în paralel cu rezervele financiare care contribuie la dezvoltarea întreprinderii						
6. Reducerea costurilor creditului, legate de primirea și servicii de creditare						
7.Creșterea dimensiunii cifrei de afaceri prin creșterea volumului de activitate într-o perioadă dată						
8.Simplificarea condițiilor comerțului în domeniul transferului de resurse financiare și nefinanciare între unitățile comerciale						
9.Costuri reduse de producție și prelucrare la o unitate de produs						

Macheta 2. Scoruri medii pe categorii de răspunsuri, după numărul de angajați ai întreprinderilor

Amenințări legate de aderarea României la zona euro și poziția competitivă a întreprinderilor	**Total**	**<49**	**<50-99**	**100-249**	**250-499**	**>499**
1.Slaba dezvoltare a cererii interne în zona euro față de zona non-euro						
2.Pierderea autonomiei de politică monetară care aparţin printre altele și BNR						
3.Creșterea prețurilor față de veniturile societății și în consecință scăderea cererii de consum						
4.Creșterea costurilor de producție pe unitatea de produs						
5.Introducerea unui sistem nefavorabil de soluții prin Euroland						
6. Riscul de stabilire a unei rate nefavorabile de conversie(calculul leilor în euro)						

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FISCAL ISSUES IN THE GLOBALIZED ECONOMY

AUTOMATIC STABILIZERS AND FISCAL REFORMS

Alina Georgeta AILINCĂ [9]

Abstract

In the context of recent economic and financial crises, it is increasingly the question of using a rapid and a more effective macroeconomic tool to stabilize national, regional or global economic activity. In this sense, automatic stabilizers seem to be an increasingly popular solution both agreed by economic theory and by economic practice. The fiscal policy reforms, with better conceived expenditure and tax tools, are analyzed in literature and have usually an impact in raising long-term growth, but growth is usually fragile when disregards the inclusion effect. Thus, the article treats the delicate subject of fiscal reforms, economic growth and (automatic) stabilization tools in order to shed some light on the relationship between them.

Keywords: *automatic stabilisers, fiscal reforms, smoothing the economic cycle;*

JEL classification: *H11, H30, E63*

Introduction

Tax policy can act on macroeconomic and microeconomic growth. At macroeconomic level, it is an element of economic stability alongside credible monetary policy and can boost investment, labour productivity and job creation, create or reduce business distortions, boost households to save or to consume, can bring social categories closer to each other through a more correct distribution of income and by increasing access to education and health, or can generate social inequality, etc. Therefore, fiscal and budgetary changes with substantial impact on society on the above elements may be arguments in favour of implementing reforms.

By definition, reform requires a transformation, a reconfiguration, a political, institutional, economic, social, cultural, legal reorganization, etc. of a structural nature and limited in duration over time in order to achieve progress or to limit shortcomings in the system. Reform implies, of course, besides the possible expected benefits and a process of alteration, destruction, dismantling and building again; therefore, there will be a number of important costs of reforming, and it will be necessary to analyze its usefulness or futility. For example, it needs to be analyzed whether in order to reduce distortions in the economy it is necessary to adjust from year to year or to implement a tax reforms or it is better to keep the tax rates throughout the economic cycle as stable as possible in order to allow automatic stabilizers to function.

Also, the problem of its usefulness or its inutility can be disjointed from the perspective of the implementation time and the time of the results delivering, and of course it is desirable, as in the case of automatic stabilizers, a shorter implementation time, with beneficial results as long as possible. However, automatic (fiscal) stabilizers can constitute a two-edged weapon: on the one hand, providing adequate protection to those affected by adverse economic changes through tax legislation, social security systems and labour market institutions but, on the other hand, the same protection allows people and companies affected by negative economic cycle to delay to adapt to changes, contributing to the diminutions of economic efficiency and potential output, thus delaying an appropriate response to supply shocks.

At the same time, the fiscal reform, being of course the privilege of governmental apparatus, implies the achievement of a significant (over a certain threshold) with normative change, which the fiscal policy imposes on its component elements. The tax reform therefore describes the relevant changes to the system of generating public revenues and spending a country's revenue in support of the production and distribution of public goods and services, but also in order to guide the economic behaviour of society according to government objectives.

If we want to make a clearer theoretical link between automatic stabilizers and tax reforms, we can consider the simplification of the classification of the tax reform according to the structural criterion, the normative axis presented in the paper "Economic Sustainability through Globalization Adjustment Policies" (Dinga et al., 2011, pp119, fig. 36). Simplifying further, as modern tax systems aim at balancing

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between active and passive functions (for example, trying to stimulate or inhibit economic behaviours based on increased tax collection capacity in order not to create budgetary imbalances), we can only refer to reforms that regard the tax system as being mixed. At the same time, if from the perspective of the fiscal sphere we consider the extension (the increase of taxation towards other lucrative economic activities) as a form of increasing the degree of granularity of the tax base, we can only refer to capillarisation of the tax base. Equally, given that automatic stabilizers aim in particular at a progressive tax regime, that is to say, pursuing greater social equity through taxation, by simplifying, we can only refer to this regime. Therefore, the fundamental features of the reforms regarding automatic stabilizers, from the perspective of: - form implies progressivity, - behaviour involves non-discretionarily or implicit action, - purpose, involves a mixed system (oriented rather to stimulation) and from the perspective of the sphere involves capillarization.

Therefore, this article proposes to argue and harmonize the idea of fiscal reform with the automatic stabilization concept, the way in which the two subjects are mutually reinforcing or, on the contrary, conflicting. The idea of developing and implementing fiscal reforms to support as much as possible the macroeconomic stabilization process as much as possible is not new, but also isn't extremely well sustained theoretically and practically.

Description of the Problem and short Literature Review

Equally, reforms involve clear budgetary and fiscal policy decisions, so obviously a discretionary character, or in a recession, tax revenue falls naturally, and social transfers grow. Thus, the distinction between the growing government expenditures caused by the fiscal-budgetary policy decisions and those that representing automatic changes of the tax variables in response to the economic cycle is difficult to achieve. At the same time, from a fiscal and budgetary perspective, reforms can aim at achieving the best possible stabilization function.

Tax reforms generally refer to either revenue or expenditure, or mixed. Revenue reforms can focus on the elimination of gaps and distortions and the expansion of the tax base and / or rate, and spending reforms could focus on improving efficiency and effectiveness in achieving the intended goal to the full, but also better management (rationalization) of spending. In order to achieve and maintain high economic growth, fiscal reforms need a convincing, coherent and well-structured design and a satisfactory fiscal space. However, little is said about the capacity and willingness of fiscal-budgetary reform for sustaining development. Therefore, the aspect of development is often analyzed from the point of view of ensuring the balance between the efficiency of a reform and the attainment of the objectives of social equity. At the same time, revenue-side reforms have lower chances of success (except for emerging and low-income countries, Akitoby, 2015) than those targeting the expenditure side. For example, a reduction in budget expenditures - more precisely the primary structural deficit - to about 4% of GDP over two years could lead to a 50% success rate of the consolidation reform (McDermott and Wescott, 1997).

In general, the idea of fiscal reforms starts from the fact that in the last decades the budget deficit and the public debt (accumulation of budget deficits) have increased substantially in almost all Western economies and the Eastern economies, although to a lesser extent, are also beginning to face more often with these problems. These developments are taking place against the backdrop of a consumer culture where growth in output and positive GDP growth are no longer equivalence at national level in raising general government revenues, and budget spending remains permanently over-proportional in relation to revenue.

Tax increases can be a short-term solution, but in the medium to long term it inhibits economic growth, a more agreeable solution, often considering reducing government spending in order to reduce the budget deficit. If government spending cuts could involve a recessionary phenomenon, then governments might be tempted not to do so in order to avoid companies bankruptcy and job losses for a large part of employees in that economy.

Like automatic stabilizers, when designing, implementing and adjusting them should be done in the economic boom and less in the recession period, fiscal consolidation reforms should avoid the direct testing in a strong and sustainable recession. In such a situation, fiscal consolidation measures could be detrimental to long-term growth, given that investment may remain low for an extended period of time. Also, fiscal consolidation in an unfavourable period (deep recession) could create the perception that some temporary revenue and capital losses could become permanent, and the business and employment

behaviour of the workforce to be similar, creating that hysteresis phenomenon (De Long and Summers, 2012).

On the one hand, it is considered that the success of a fiscal reform implies integrating it into a wider reform framework that would provide the government with a sufficient credibility for the fiscal consolidation commitment. Structural reforms are an example of this, strengthening the labour market on employment, stimulating trade freedom and increasing labour productivity, as well as setting up new companies, supporting deregulation and increasing competition between companies.

On the other hand, the presence of tax reforms in a broad framework of reforms makes it more difficult to identify the impact of fiscal reforms on economic growth than in the case where tax reforms are not part of a reform package. Consequently, other reforms can play an important role in certain macroeconomic developments, developments first attributed to a tax reform. This can be explained by the fact that the existing analytical tools are still extremely limited in the clear delineation of the effects of fiscal policy reforms on other possible determinants. Furthermore, the complementary accompaniment of fiscal policy reform to other structural reforms enhances the consolidation of results and can determine the effectiveness of fiscal reform. Consequently, the isolation of tax reform and its results from the broad framework of theoretical and practical reforms would in some cases recommended be avoided.

Methodology and Data Sources

Although it is difficult to determine causality with certainty, the analysis suggests that the impact of fiscal reforms could raise per capita economic growth in medium and long term by ¾ percentage points in advanced economies and even more in developing economies. Moreover, when, in the framework of the reforms, the targeting of budget expenditures is made towards infrastructure investments, one could add ¼ p.p. economic growth (IMF, 2015).

At the same time, another dilemma relates to identifying where tax reform is the cause of economic growth or effect, a solution perhaps being the analysis of tax reforms or adjustments throughout the whole economic cycle (recession and expansion).

At the same time, an analysis before and after the start of the reform and its effect on: economic growth, debt/GDP ratio, unemployment rate, job creation, exchange rate, interest rates (short and long term) and on investment, can help shape conclusions about the effectiveness of fiscal reform on the economy in question. Therefore, the article attempts to outline this hypothesis from a few episodes of reform (regarding personal income) made in early 2010 (in countries such as France and Latvia with progressive taxation) and we will look at their possible correlation with economic growth, government debt developments (expressed as a percentage of GDP), developments in unemployment rates and long-term interest rates (according to Maastricht criteria).

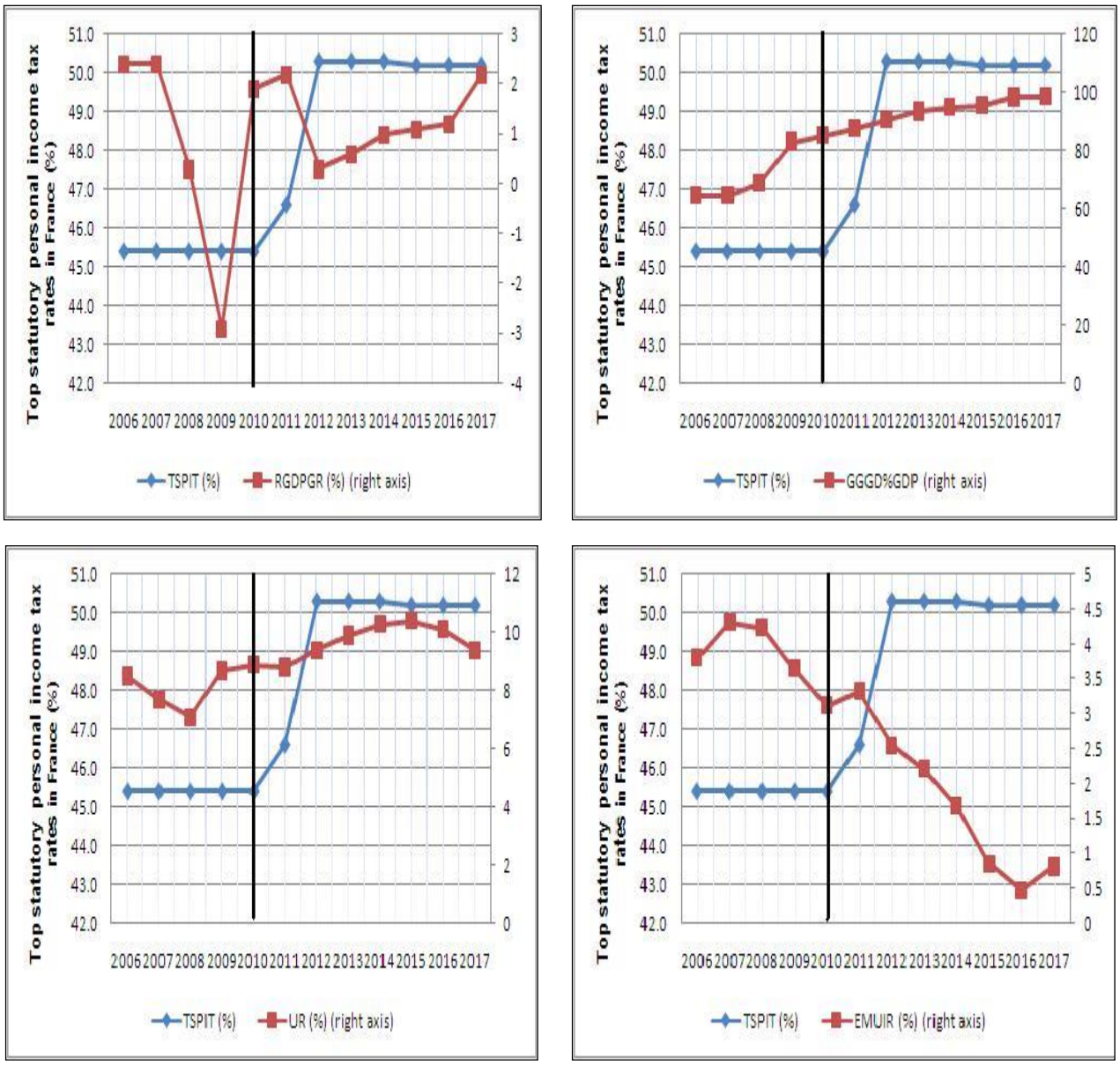
Results Obtained

According to the theory, strong economic growth helps to implement a successful tax reform with declines in public debt/GDP ratio, while poor economic growth with high interest rates reduces the chances of success of tax reform. Equally interesting is the reverse analysis, it would indicate whether fiscal reforms have the capacity to contribute to economic growth, reducing public debt, lowering the unemployment rate, stabilizing the exchange rate and interest rates (in this case, the present analysis is choosing long-term interest rates).

Given that at the end of 2010 and the beginning of 2011, progressive personal income tax has been improved in many EU Member States (such as France, Spain, Great Britain, Greece, Portugal, Latvia, Luxembourg, Ireland, etc.) but in many others has been reduced (e.g. Hungary and Denmark) (European Commission, 2011), we consider only two EU states: France and Latvia, with progressivity growth. The two countries are chosen: one to represent Western Europe and the other Central and Eastern Europe (New Member States). The choice of France was due to the fact that it increased the personal marginal tax as much as possible compared with other's member states, but also the taxation of capital income. Also, choosing Latvia was based on the rising of the upper rate (thus favouring the social equity function).

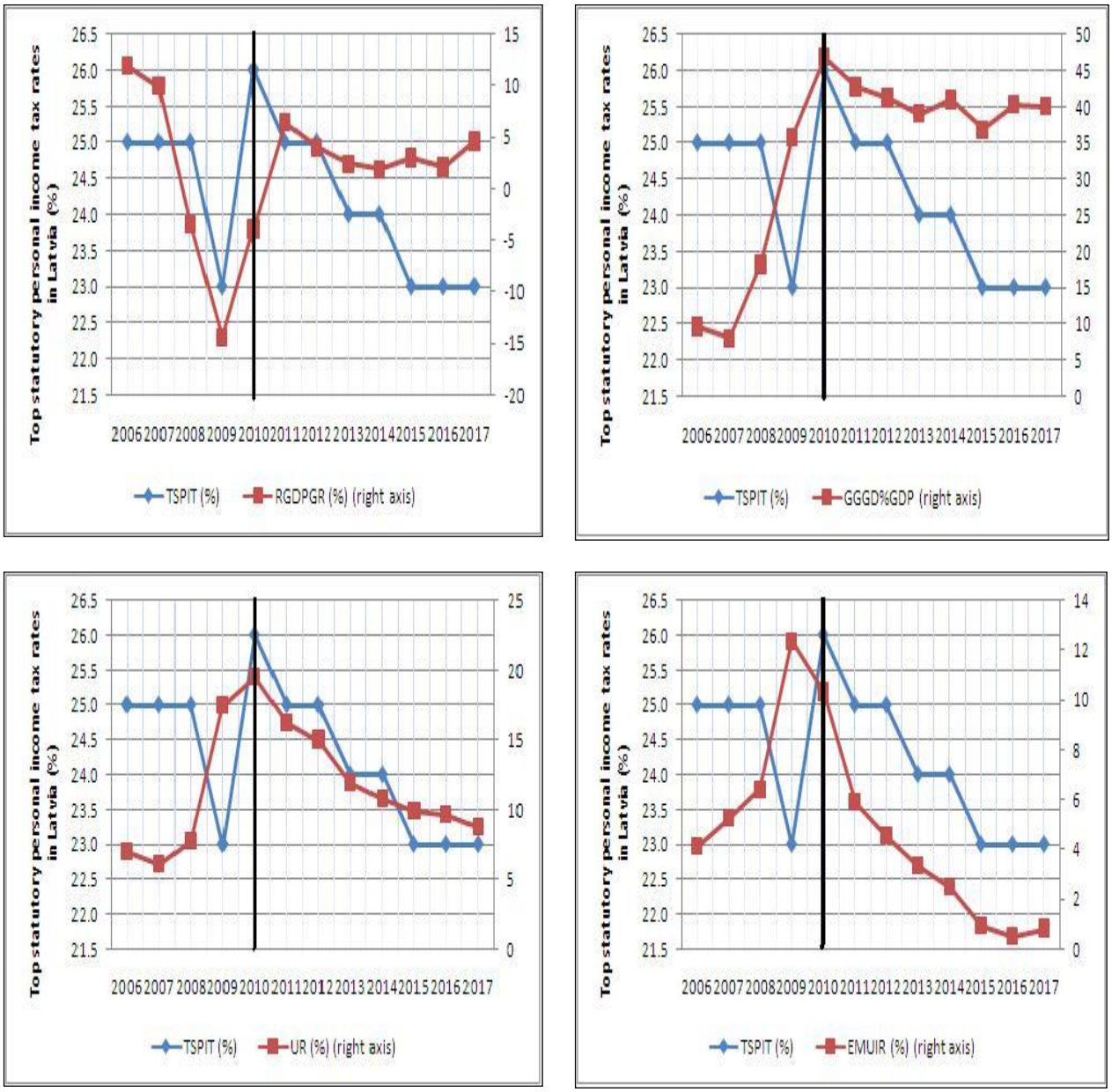
In the Figure 1 (for France) and Figure 2 (for Latvia) it can be seen that there are some connections between the top statutory personal income tax (TSPIT) and main macroeconomic variables choose for PIT reform responsiveness. Interesting is that the macroeconomic variables are anti-cyclical in report to economic growth rate but not regarding TSPIT. The black line is the mark for reform moment.

Figure 1. The connection between top statutory personal income tax and real GDP growth rate, General government gross debt (% of GDP), Unemployment rate (%) and EMU convergence criterion series for long-term interest rates (%) for France for 2006-2017


Top statutory personal income tax rates in France (%)
TSPIT (%)
RGDPGR (%) (right axis)
GGGD%GDP (right axis)
UR (%) (right axis)
EMUIR (%) (right axis)

Source: Data from Eurostat, author's processing. The notation: TSPIT – top statutory personal income tax, RGDPGR - Real GDP growth rate – volume (Percentage change on previous year), GGGD%GDP - General government gross debt - annual data (Percentage of GDP) , UR - Unemployment rate by age (% of the labour force between the age 15-74) , EMUIR - EMU convergence criterion series for long-term interest rates - annual data (%) or Maastricht criterion bond yields (central government bond yields on the secondary market, gross of tax, with around 10 years' residual maturity).

Figure 2. The connection between top statutory personal income tax and real GDP growth rate, General government gross debt (% of GDP), Unemployment rate (%) and EMU convergence criterion series for long-term interest rates (%) for Latvia for 2006-2017


Top statutory personal income tax rates in Latvia (%)
TSPIT (%)
RGDPGR (%) (right axis)
GGGD%GDP (right axis)
UR (%) (right axis)
EMUIR (%) (right axis)

Source: Data from Eurostat, author's processing. The notation: TSPIT – top statutory personal income tax, RGDPGR - Real GDP growth rate – volume (Percentage change on previous year), GGGD%GDP - General government gross debt - annual data (Percentage of GDP) , UR - Unemployment rate by age (% of the labour force between the age 15-74) , EMUIR - EMU convergence criterion series for long-term interest rates - annual data (%) or Maastricht criterion bond yields (central government bond yields on the secondary market, gross of tax, with around 10 years' residual maturity).

Also for France the anti-cyclicality between TSPIT can be seen in report to EMU convergence criterion series for long-term interest rates (%) (See Table 1) and for Latvia in report to the General government gross debt (% of GDP) (see Table 2). For France, the strong correlation between TSPIT and long term interest rates might indicate also a great credibility of the French government in the international financial markets.

Table 1. Matrix of correlation between top statutory personal income tax and real GDP growth rate, General government gross debt (% of GDP), Unemployment rate (%) and EMU convergence criterion series for long-term interest rates (%) for France for 2006-2017

	TSPIT (%)	*RGDPGR (%)*	*GGGD (%GDP)*	*UR (%)*	*EMUIR (%)*
TSPIT (%)	1				
RGDPGR (%)	0.037250	1			
GGGD (%GDP)	0.835638	-0.107429	1		
UR (%)	0.846268	-0.013216	0.868928	1	
EMUIR (%)	-0.880030	-0.106628	-0.882299	-0.872450	1

Source: Data from Eurostat, author's processing using Excel Data Analysis

The notation: TSPIT – top statutory personal income tax, RGDPGR - Real GDP growth rate – volume (Percentage change on previous year), GGGD%GDP - General government gross debt - annual data (Percentage of GDP) , UR - Unemployment rate by age (% of the labour force between the age 15-74) , EMUIR - EMU convergence criterion series for long-term interest rates - annual data (%) or Maastricht criterion bond yields (central government bond yields on the secondary market, gross of tax, with around 10 years' residual maturity).

Table 2. Matrix of correlation between top statutory personal income tax and real GDP growth rate, General government gross debt (% of GDP), Unemployment rate (%) and EMU convergence criterion series for long-term interest rates (%) for Latvia for 2006-2017

	TSPIT (%)	*RGDPGR (%)*	*GGGD (%GDP)*	*UR (%)*	*EMUIR (%)*
TSPIT (%)	1				
RGDPGR (%)	0.243557	1			
GGGD (%GDP)	-0.254080	-0.387332	1		
UR (%)	0.202345	-0.578553	0.703699	1	
EMUIR (%)	0.422460	-0.639280	-0.026345	0.645902	1

Source: Data from Eurostat, author's processing using Excel Data Analysis

The notation: TSPIT – top statutory personal income tax, RGDPGR - Real GDP growth rate – volume (Percentage change on previous year), GGGD%GDP - General government gross debt - annual data (Percentage of GDP) , UR - Unemployment rate by age (% of the labour force between the age 15-74) , EMUIR - EMU convergence criterion series for long-term interest rates - annual data (%) or Maastricht criterion bond yields (central government bond yields on the secondary market, gross of tax, with around 10 years' residual maturity).

Conclusions

For the success of a fiscal reform, besides efficiency in communication, it is necessary to introduce measures or packages of compensatory measures for those who could be negatively affected by the provisions of fiscal reforms.

A series of tax reforms that may have a strong countercyclical character may be those that lead to progressive tax revenue growth, and in particular personal income tax and corporate tax. Thus, for the empirical study of the moment of reform, I took the year 2010, given that in the period 2006-2007 there were accumulated problems that led to the 2008-2009 economic crises. The countries analyzed were two states (one in Western Europe and one in Central and Eastern Europe): France and Latvia. They unleash progressive taxation and increased the progressivity during the analysis period (especially in 2010), with France registering an increase in TSPIT in 2010-2012 and Latvia a gradual decrease of TSPIT in 2010-2017. The anti-cyclical character of the two countries on the chosen variables is demonstrated in relation to economic growth, but the change in TSPIT is influencing negatively for France the long-term interest rate according to the Maastricht criterion, and for Latvia the gross public debt expressed as a percentage of GDP. The correlation matrices for the two countries demonstrate the above, but the results must be interpreted with caution due to limited data series.

It should also be said that although we cannot talk about the reverse correlations between TSPIT and the main chosen macroeconomic variables over the entire period, anti-cyclicality can be observed over shorter periods of time for both France and Latvia. Moreover, in both countries there is a progressive taxation and thus it is feasible that for other rates, beside TSPIT, to be registered a negative correlation with the indicators chosen for the analysis.

Tax reforms aimed at increasing the performance of automatic stabilizers are reforms of "fine tuning" or finesse, which imply insignificant or moderate but substantial economic growth from the perspective of translating the effects of growth into the economy (especially on the population and companies), the fineness of the fiscal “fabric" can direct, implicitly and naturally, the fiscal behaviour towards what may be considered desirable.

Against these backgrounds, we can notice that the new trends in fiscal developments certainly contain elements in the direction of greater responsiveness to economic cycle developments and to the greatest possible appeal to automatic stabilization mechanisms. For example, in the context of economic recovery, it is desirable to implement tax reforms that avoid pro-cyclicality. Furthermore, tax reforms should focus on aspects of enhancing social inclusion and protecting the environment. At the same time, it is necessary to move to progressive tax systems (especially regarding the taxation of personal income), which will ensure a better function of redistribution and relief of tax burden.

Future Directions to Be Approached

A future deeper analysis might be interesting from the point of view of social inequity, on the grounds that there are relatively ambiguous (some positive, other negative) statements in literature about the capacity of fiscal reforms to improve social equity, while others are clearly stating the rise in social inequity on the back of fiscal reforms.

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*** Eurostat data base.

IDENTIFICATION CRITERIA OF AUTOMATIC STABILIZERS AND THEIR TYPOLOGICAL CLASSES

Alina Georgeta AILINCĂ [10]

Abstract

In the literature, but especially in practice, there are many public debates about the most effective way to manage different macroeconomic shocks and to improve the economic cycle. Many rely on discretionary macroeconomic policies, but there are increasingly intense discussions about the use of automatic tools. Therefore this article attempts to clarify what automatic stabilizers are, what could be the classification criteria and the typologies of automatic stabilizers for a better design of these macroeconomic adjustment tools.

Keywords: *automatic stabilisers, output smoothing, economic cycle;*

JEL classification: *H30, E32, E63;*

Introduction

The global financial and economic crisis has brought to light the qualities and weaknesses of fiscal policy, re-entering in the the attention of the media and the academic environment as a supporter and counterpart of monetary policy in stabilizing macroeconomic fluctuations. At the same time, the global financial crisis has repositioned the role of discretionary fiscal policy by granting national fiscal incentives, but also by substantial recapitalization of the most important deadlock financial institutions. This aspect, in addition to boosting low domestic demand, has had a strong adverse effect - rising deficits and public debt in advanced and emerging economies in the world. Faced with the shortcomings of discretionary fiscal policy, distorted by political constraints and obtuse targets guided by electoral cycles, fiscal policy with an automatic character, based on simple, clear fiscal rules and anticyclical effects, again brings to light the role and the importance of automatic stabilizers.

Automatic stabilizers are considered to play an important role in smoothing production and have the main advantage of lacking implementation gaps, a benefit outlined by the fact that it does not require a deliberate decision by the government or the monetary authority in order to take action, being an structural endogenous element. Although with obvious utility in the economy, there are varied and sometimes divergent views on the nature, role, features and effectiveness of automatic stabilizers. In this regard, this article aims to clarify a series of features of automatic stabilizers, starting from the description of possible classification criteria and thus contributing to the understanding of the mechanism of the automatic stabilizers functioning.

Description of the Problem and short Literature Review

The literature often deals with the problem of automatic stabilizers only from the fiscal and budgetary perspective, analyzing either the revenue side or the expenditure side, considering on the base of the empirical and theoretical studies that the most prominent stabilizers are the unemployment benefits on the expenditure side, and on the revenue side the taxes, and as a whole, the size of the government is seen as a major automatic stabilizer (Martner, 2000; Cogan et al., 2010; Bornhorst et al., 2011; Shen and Kaya, 2013 etc.). In terms of monetary policy, few studies address the issue of automatic stabilizers (Krugman and Obstfeld, 2003; Palley, 2014; Ailinca, 2015 etc.) and the link between the two policies is often excluded from the automatic stabilization analysis. Moreover, pure theoretical studies that clarify what are, what features have automatic stabilizers and how they work are extremely isolated.

However, in the work of Dinga (coord., 2011), the following criteria for the classification of automatic fiscal stabilizers (AFS) are identified: *the part of the economic process targeted by the AFS* (noted criterion E, aggregate demand noted E1 and aggregate supply noted E2), *the length* of the SFA action (the number of intermediate links between the AFS and the final target or the L criterion, being divided into unmediated AFS or L1 and mediated AFS or L2), the width of the AFS action (number of variables affected by an AFS

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or criterion W; AFS with mono-variable action or W1 and AFS with multi-variable action or W2), the final target of an AFS (e.g. the variable on which AFS will act, the criterion S, with 7 sub-criteria referring to labor factor - S1, capital - S2, imports - S3, private consumption - S4, private investment - S5, exports - S6, government expenditure - S7), AFS impact channel (or AFS fiscal policy instrument, noted T criteria), the connectivity of the AFS action (or C criterion, single AFS in a chain of transformations - C1 or non-unique C2), the form of AFS action (the F criterion; continuously - F1 or with discontinuity - F2), the mode of action of an AFS (permanent or M2 criterion or singular the M1 criterion), the density of the institutional grid (refers to the existence of a threshold – the K1 criterion or multiple thresholds for variation in the rate of action of an AFS or the K2 criterion), the invariance of an AFS (the possibility or lack of autofeedback; where the AFS which conserve themselves have the notation criterion I1, and non-conservative I2).

Methodology and Data Sources

Numerous studies address the issue of automatic stabilization at either microeconomic or macroeconomic level, focusing mainly on empirical studies and simulations, generally on the fiscal-budgetary side. Theoretical studies, although extremely few, can bring important clarifications on what are automatic stabilizers, what are their features, and how they can be exploited theoretically and practically to increase the effectiveness of using stabilization tools. This article represents a partial valorisation of the study "Automated Stabilizers in the Economy - Concept, Classification and Design Elements" (Ailinca, 2018 coordinator, study conducted within the “Victor Slăvescu” Center for Financial and Monetary Research). Thus, this article is based primarily on an abstract, theoretical and logical analysis, without a contextualized concentration of the empirical nature, proposing the analysis and the increasing of the degree of consistency of the concept of automatic stabilizer in the economy, offering as much as possible a very own interpretations. This analysis is favored by the existence of important differences in literature approaches, of different methods of calculating automatic stabilizers (especially fiscal ones), of different definitions and different indicators, beeing no agreed reference as universally valid for this subject.

Results Obtained

Identification of classification criteria and typology classes of automatic stabilizers

On the basis of Dinga's work (coord., 2011), the criteria for the classification of automatic fiscal stabilizers can be easily extended to other automatic stabilizers, such as automatic monetary stabilizers (see Table 1).

Given that automatic stabilizers often use the institutional path open by the classical macroeconomic policy instruments, we recall the monetary policy instruments used by them: 1. Monetary market operations, 2. Permanent facilities offered to credit institutions, and 3. Minimum mandatory reserves (RMO). Monetary market operations are mainly aimed at communicating monetary policy guidance, guiding interest rates and managing liquidity conditions on the market. Monetary market operations pursue liquidity injections (e.g. repo operations, collateralised loans with eligible assets for collateralisation, purchases of eligible assets for trading), and liquidity absorption (e.g. reverse repo operations, attraction of deposits, issuance of deposit certificates, sales of eligible assets for trading) and foreign exchange swap, representing two simultaneous transactions with the same counterparty, also used for injection or absorption of liquidity.

Table 1. The typological framing of the potential automatic monetary stabilizers according to the classification presented in Dinga's work (coord., 2011)

		Exchange rate	Automatic money market operations that seek liquidity injection	Automatic money market operations that seek the absorption of liquidity	Automatic interest rate on the permanent credit facility	Automatic interest rate on the permanent deposit facility	Automatic rate of MMR in lei	Automatic rate of MMR in foreign currency
E	E1							
	E2							
L	L1							
	L2							
W	W1							
	W2							
S	S1							
	S2							
	S3							
	S4							
	S5							
	S6							
	S7							
T	T1							
	T2							
	T3							
	T4							
	T5							
C	C1							
	C2							
F	F1							
	F2							
M	M1							
	M2							
K	K1							
	K2							
I	I1							
	I2							

Source: author's conception

As regards the permanent credit facilities, they are also designed to provide short-term (one day) liquidity absorption, but also to stabilize the short-term interest rates (overnight interest rate) of the money market through the corridor form by the credit facility respectively the deposit facility, which can also be designed at a certain moment in a form of automatic monetary stabilizer.

At the same time, the monetary policy interest rate of the two facilities represents the nominal interest rate under the full control of the national bank, which can be increased / decreased sufficiently by an automatic mechanism in order to increase / decrease the real interest rate, acting as an automatic stabilizer towards reducing / increasing aggregate spending serving to stabilize the economy at the potential level (Stiglitz and Walsh, 2005). If we consider the inflation the main monetary policy target and the monetary policy interest rate as the main monetary policy instrument, it is important to specify the difficulty in determining the extent to which the nominal interest rate (monetary policy interest rate) should increase / decrease as a result of growth / decrease in inflation. Therefore, in order to preserve real decision-making power, this instrument may not be wanted to be designed as an automatic stabilizer.

Regarding Mandatory Minimum Reserves (MMR), which is the available money (in lei and in foreign currency) in the National Bank of Romania (NBR) accounts of credit institutions, also here could be concivied as a stabilizing instrument. Considering that the rate of Mandatory Minimum Reserves aims to increase / decrease the ROL credit expansion and the rate of Mandatory Minimum Reserves in foreign

currency seeks to increase / decrease the foreign currency credit expansion, we can consider that an automatic stabilizer based on MMR would directly target credit control, and thereby adjusting the economy.

If we take into account that controlling and reducing inflation is the main monetary policy target, even if money market demand can require to raise money supply, the central bank will act through the key interest rate (implicitly by the standing facilities) by increasing it (restricting the ability of commercial banks to lend to the economy) than by means of monetary growth, which is why I did not consider the instrument of using monetary aggregates as possible automatic stabilisers. However, automated tools could also be designed for monetary aggregates.

From the perspective of the transmission channels (we considered this criterion the T criterion), according to the NBR, it can be noted: the exchange rate channel (T1), the credit channel (T2), financial institutions the interest rate channel (T3) the balance sheet channel (T4) and the channel of economic agents' expectations regarding inflation (T5).

It should be noted that in the case of the economic process side of the action of an automatic stabilizer (E criterion), in the short and medium term monetary policy through its instruments (automatic or discretionary) affects only the gap between the actual or real level of production and the long-term sustainable one, thus not directly influencing the workforce situation, technological endowment and implicitly production.

By the fact that monetary policy aims to stabilize the liquidity market conditions by injecting liquidity (e.g. buying assets, repo operations, etc.) - this can be assimilated to the function of spending within budgetary-fiscal policy (by spending the public money the government offers liquidity to the system, respectively by absorption of liquidity (e.g. asset sales, reverse repo operations, etc.) - this can be assimilated to the revenue collection function of the state budget, with the withdrawal of funds /liquidity from the economy. This systematization can allow us to fit the monetary and fiscal stabilizers according to the supply / withdrawal of liquidity in the economy (let consider this the criterion A). Thus, we can assume that there are automatic stabilizers that inject liquidity (A1) and others that absorb it (A2).

According to Göndör (2012) on the characteristics and role of automatic fiscal stabilizers, the author points out that the disadvantages of discretionary fiscal policy recommend the use of automatic stabilizers due to lower political interference, faster decision-making and, in general, a economic environment with less fiscal uncertainties. Other elements that might recommend the use of automatic stabilizers according to the author are: more transparency, a clearer mechanism of operation and more responsibility. Thus, in relation to the concentration of discretionary or non-discretionary character, we can classify the stabilizers as automatic, quasi-automated or discretionary. In this regard, for automatic stabilizers (noted B criterion) we might consider them as automatic (B1) and quasi-automatic (B2).

Another possibility of classification could be the quality of "path dependence" of automatic stabilizers. Thus, depending on the "path dependence" (noted C criterion), automatic stabilizers can be considered either to use the "pathway" of discretionary policy tools to exert their action (C1) or to act in other ways (C2), creating new tools for macroeconomic policies, so their own institutional path.

Another classification element could be the action time of an automatic stabilizer. Depending on the time of action (noted D criterion), stabilizers can be considered to have short duration of action (consider 1-12 months – criterion D1), mean duration of action (we consider more than 1 year but less than 5 years - the D2 criterion) or long duration of action (lets consider over 5 years - D3 criterion). This classification could be analyzed in relation to the duration of the economic cycle. The economic cycle, consisting of fluctuations in the recurrent economic activity, is generally measured by GDP movements (downward and upward) around the trend. It is considered according to the economic theory that business cycles last between 1-8 years, while financial cycles last in average 16 years and the moment of systemic banking crises coincides with the cycles of financial cycles (Isărescu, 2013). Turning to the duration of an automatic stabilizer, according to Socol and Socol (2012), "the impact of automatic stabilizers is short-lived, and if they operate symmetrically over the economic cycle, it does not contribute to a deterioration of the structural budget position". Here, it should be noted that besides the duration of action of a stabilizer, we must also analyze the duration of the effects (benefits) of a stabilizer, and of course it should be observed that the duration of the benefits of a stabilizer should be projected as great as possible and the duration of action of a stabilizer as small as possible but optimal.

Another element of classification may be the nature of the basis upon which it is acting. Depending on the nature of the basis on which they act (E criterion), automatic fiscal stabilizers can act on either income items (E1) or either on expenditure items (E2), adjusting automatically to changes in the economic cycle (Martner 2000, pp. 32). A criterion that can also be used for monetary stabilization (acting either on the asset side - I think it can be assimilated to E2 or either on passive side - assimilable to E1). At the same time, if we consider the balance sheet perspective at the aggregate state level, we can consider that there can be automatic stabilizers that can act either on the asset side or on the passive side.

At the same time, the degree of responsiveness of the control variable to changes in the economic cycle, having an impact on the degree of responsiveness of the control variable to the action of an automatic stabiliser (AS), describing the possible efficacy of an AS, may be considered another classification criterion. It may be another classification criterion. The command variable receptivity can be determined by the structure and system features of the command variable. According to the degree of responsiveness of the control variables to changes in the economic cycle, we can analyze the effectiveness of the action of an AS (noted Criterion F). For example, depending on the receptiveness of expenditures and revenue (e.g., implicit taxes) to changes in the economic cycle, the single tax rate or the progressive taxation system can be used in fiscal-budget policies. For example, the progressive taxation system offers a better connection between fiscal policy and the economic cycle. Thus, we can assume that there are automatic stabilizers whose control variables have low (F1) or high (F2) responsiveness to changes in the economic cycle. According to Buti et al. (2003) and the European Commission (2001), empirical evidence shows that the more a state has a more generous social system and a large fiscal system and a progressive tax system, the state tends to extract a greater "smoothing effect" from automatic stabilizers.

The nature of the macroeconomic shock on which an automatic stabilizer acts, may be another classification criterion. The operating principle of automatic stabilizers is to balance the budget in relation to the evolution of the production deficit. More specifically, the functioning of AS is guided by the preventative, anti-cyclical character of economic behavior. An AS pursues fiscal or monetary relaxation during the economic downturn, while in the economic boom period it tightens and strengthens fiscal-budgetary or monetary policy, and therefore seeks primarily to combat the effects of a demand shock. Depending on the the nature type of the shock, there are automatic stabilizers acting in the first phase either on a demand shock (let us state the criterion - G1) or on the offer shock (G2 criterion).

If we consider the possibility of the reversibility of the expansion or contraction of the economy by the action of automatic stabilizers, we can consider the impact on the reversibility of expansion or contraction of the economy another criterion. Depending on the impact on the reversibility of the expansion or the contraction of the economy (lets consider the H criterion), automatic stabilizers can be considered to have a perfectly reversible (H1) or partially / semi-reversible (H2) effect.

Depending on the predominant ability to remove an unwanted effect or to obtain a positive effect (I criterion), automatic stabilizers can be categorized as deviators (e.g. stabilizer action is focused to reduce social inequality - I1 criterion) and attractors - the I2 criterion (e.g. guaranteed minimum income, state allowance for children).

Another criterion could be the degree of derivation of the effects of automatic stabilizers in the economy. Depending on the degree of derivation of their effects in the economy (the J criterion), we can consider the existence of primary stabilizers (J1), secondary (J2), tertiary (J3) and quaternary (J4). This classification could be based on the systematization of the sectors of the national economy, shaping up how far the effects of automatic stabilizers can get.

Another classification criterion could be the geographical area of action. Depending on the geographical area of action (let consider this the K criterion), automatic stabilizers may be local / national (K1), regional (K2) and international or global (K3) (e.g. AS created by international bodies or as a result of international treaties). Recently, in the European context, supranational automatic stabilizers are being discussed, which would have the effect of smoothing cyclical fluctuations (mainly reducing boom and bust episodes) and increasing the confidence of national member states in EU bodies, taking over some insurance and stabilization function on a supranational level.

At the same time, another element of grouping of automatic stabilizers could be the level of economic action. Depending on the level of economic action (criterion L): automatic stabilizers can be microeconomic (L1) and macroeconomic (L2).

If we are talking about the macroeconomic policies in which an automatic stabilizer could operate, another criterion would be the macroeconomic policies pursued. Depending on the macroeconomic policies pursued (criterion M), they can be automatic fiscal-budgetary stabilizers (M1), social stabilizers, monetary stabilizers (M2), etc. According to Andersen (2016), it is considered that a clear distinction is not possible between fiscal policies and social and labor market policies, which is why we can also regard social automatic stabilizers as falling into the fiscal ones.

The area of complexity of an AS may be another criterion for grouping automatic stabilizers. Depending on the complexity of the action of an AS (N criterion), there may be automatic stabilizers with direct individual action on a single macroeconomic policy (N1) and automatic stabilizers with mixed action (eg simultaneously intervening in fiscal policy and in the monetary policy - N2 criterion).

Although it is often distinct, we can also take into account the criterion of overlapping the trigger identity over the automatic stabilizer (assimilable to a self-stabilizing phenomenon) and the overlapping trigger over the variable to be controlled. Depending on the overlapping of the trigger identity over the automatic stabilizer (O criterion), (e.g. the trigger is only a threshold of the stabilizer instrument, for example the exchange rate in the case of a self-regulating mechanism) (O1) or another variable (O2) (the trigger can be an intermediate variable or even variable that you want to control).

Although, indirectly, it can describe an automatic stabilizer, thus we can take into account the suitability of the trigger as another criterion of classification. Depending on the trigger's suitability (P criterion): rough (P1) or sensitive (P2); aspect which can differentiate between the suitability or inadequacy of the trigger on the automatic stabilizer. For example, in the case of unemployment benefit, the trigger may be the unemployment gap or production gap or unemployment rate, often considering that the unemployment rate is more appropriate, more sensitive, as a trigger variable, of course at a certain threshold (European Commission, 2013, page 5). This criterion can also be considered separately, detached in the strict sense of the features of the automatic stabilizer (especially when its identity does not overlap the stabilizer).

At the same time, we can make a ranking according to the trigger threshold height. Depending on the trigger threshold height (Q criterion), it can be considerd an automatic stabiliser with low / discrete threshold for trigger (Q1) or high threshold for trigger (Q2). There could also be multiple thresholds, symmetrical or asymmetrical. It is considered, for example, that the height of the threshold of the trigger affects the frequency and duration of the stabilization benefit in the opposite direction. Also, even under the threshold, there is a possibility that the economic and social situation of the potential beneficiary is rather precarious and requires stabilization, but due to the high threshold it might not to receive it. Also this criterion can be detached in strict sense of the stabilizer features and can be taken over by a classification of the trigger variable.

Another possible classification criterion may be depending on the characteristics of the tension of the flow of economic substance or the stabilized element. Depending on the characteristics of the economic material flow voltage of the stabilized element (noted R criterion), it may be diminishing stabilizers (R1) or potentiators / amplifiers (R2).

At the same time, it should be taken into account the criterion on the effectiveness of stabilizers. Depending on the stabilizer efficiency criterion (let's note S criterion) we can assume that there are strong or high-efficiency automatic stabilizers (S1) and low-efficacy automatic stabilizers (S2). For example, according to Stiglitz and Walsh (2005), an economy with stronger automatic stabilizers has an aggregate demand-inflation curve more close to vertical, with a lower cyclical unemployment and less output reduction than in the case if automatic stabilizers would not work. Below is the typological codification according to the above mentioned criteria of the automatic monetary stabilizers (see Table 2) and of the automatic fiscal-bugdetary stabilizers (see Table 3).

The presentation of these typologies is not intended to be exhaustive, and there are certainly other ways of systematizing and classifying automatic stabilizers, of course, depending on a certain purpose or multiple purposes established in the framework of macroeconomic policies.

Table 2. Typological framing of potential automatic monetary stabilizers according to the above classification

		Exchange rate	Automatic money market operations that seek liquidity injection	Automatic money market operations that seek the absorption of liquidity	Automatic interest rate on the permanent credit facility	Automatic interest rate on the permanent deposit facility	Automatic rate of MMR in lei	Automatic rate of MMR in foreign currency
A	A1	■	■		■		■	■
	A2	■		■		■	■	■
B	B1	■	■	■	■	■	■	■
	B2							
C	C1	■	■	■	■	■	■	■
	C2							
D	D1	■	■	■	■	■	■	■
	D2						■	■
	D3							
E	E1	■		■		■	■	■
	E2	■	■		■		■	■
F	F1							
	F2	■	■	■	■	■	■	■
G	G1	■					■	■
	G2	■	■	■	■	■	■	■
H	H1	■						
	H2		■	■	■	■	■	■
I	I1	■	■	■			■	■
	I2				■	■		
J	J1	■	■	■	■	■	■	■
	J2	■						
	J3	■						
	J4	■						
K	K1	■	■	■	■	■	■	■
	K2	■					■	■
	K3							
L	L1							
	L2	■	■	■	■	■	■	■
M	M1							
	M2	■	■	■	■	■	■	■
N	N1	■	■	■	■	■	■	■
	N2	■						
O	O1	■						
	O2	■	■	■	■	■	■	■
P	P1							
	P2	■	■	■	■	■	■	■
Q	Q1	■	■	■	■	■	■	■
	Q2						■	■
R	R1	■		■		■	■	■
	R2	■	■		■		■	■
S	S1	■						
	S2	■	■	■	■	■	■	■

Source: author's conception

Table 3. Typological framing of potential automated fiscal stabilizers according to the above classification

		Personal Income Tax	Corporate income tax	Parafiscal payments (contributions)	Transfers (social assistance) (social aid, social subsidies, guaranteed minimum income)	Transfers (Unemployment Benefit)
A	A1					
	A2					
B	B1					
	B2					
C	C1					
	C2					
D	D1					
	D2					
	D3					
E	E1					
	E2					
F	F1					
	F2					
G	G1					
	G2					
H	H1					
	H2					
I	I1					
	I2					
J	J1					
	J2					
	J3					
	J4					
K	K1					
	K2*					
	K3					
L	L1					
	L2					
M	M1					
	M2					
N	N1					
	N2					
O	O1					
	O2					
P	P1					
	P2					
Q	Q1					
	Q2					
R	R1					
	R2					
S	S1					
	S2					

Source: author's conception, head of the table is from Dinga's work (coord., 2011); it would be advisable to have stabilizers at regional (for example, EU) level as well*

Conclusions

The global financial and economic crisis has brought to light the qualities and flaws of fiscal policy, considering that monetary policy can not solve the main macroeconomic imbalances alone and entirely. The role of the state has been reconsidered, both from a discretionary perspective, of the concrete measures taken by governments on the economy, but also from the perspective of automatic functioning. Although monetary policy is considered to be a good tool for monetary instruments to stabilize disturbing macroeconomic fluctuations, the crisis has shown that there is room for better design of monetary policy management tools and automated stabilization.

The highly varied and often divergent opinions on automatic stabilizers require the need to deepen the knowledge of the nature, role, features and effectiveness of automatic stabilizers in the economy. Thus, this article aims to clarify a series of features of automatic stabilizers, starting from the description of possible classification criteria, in addition to those already mentioned in the literature, hoping to contribute at least theoretically to the better understanding of the operation mechanism of automatic stabilizers.

Future Directions to Be Approached

At the same time, given that the automatic stabilizer is analyzed against a chosen variable in order to be stabilized, a strict analysis may be considered necessary, focusing on the variable to be stabilized (especially if there is a distance between automatic stabilizer and the final target) in the sense that it should be noted that part of these classification criteria could be applied to it (and also to the economic context in which an automatic stabilizer acts). This could lead, by integrating as much knowledge as possible, to a better understanding of the mechanism of automatic stabilizers' operation in the economy. Equally, the simultaneous treatment of automated monetary and fiscal elements and the integration of knowledge about their functioning could make a significant contribution to understanding the cohesive function mechanism of macroeconomic policies.

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REDUCING TAX EVASION BY INTRODUCING CONTROL GUIDES IN ROMANIA

PhD, Matei Adrian Ducu[11]

Taxes are paid in the sweat of every man who labors.
***Franklin D. Roosevelt** (b. 1882, d. 1945)*
The thirty-second president
of the United States of America
(1933–1945)

Abstract

Companies operating on legal basis and which pay their taxes correctly do not cope with the existing competition when tax evasion reaches a high level in economy. However, more effective control by tax authorities is required in a way that gives hope and the certainty that someone really cares. This can be doubled by a more rigorous verification by state control bodies, by using modern ways to eliminate subjectivism and to promote similar solutions to similar issues. Such stratagem can be achieved by means of control guides and handbooks with similar approach for similar issues and focused on types of taxes; it requires designing control tests to be specifically applied to them, as well as the legal basis of test, the controlled documents, a description of possible errors and an enumeration of possible consequences.

***Keywords**:* tax evasion, competition, informal economy.

JEL Classification: H26

Introduction

Solutions are being sought to promote a competitive environment as effective as possible in the market economies which aim to progress, where companies enjoy free initiative, the freedom to decide as efficiently as possible how to combine production factors and the free movement of goods, services and capital, as well as equal treatment. All these mean an equal treatment when considering the special features of tax systems in the jurisdiction where business is conducted. For this purpose, it is necessary to study these tax systems which become more complex and may result in some inequities either by their regulations, or by their implementation, or by the way in which state control bodies accomplish their duties.

For this purpose, it is important to permanently analyze both legislation and regulations, but also the public policies which influence taxation, from an independent perspective. This includes both those which are in force and those which will be adopted by professional assessment, helping to trace those normative acts or regulations as well as public policies specific to the fiscal area and which have a negative influence on the equal treatment between companies and help identify the best solutions. It is important to keep the principles of the great Scottish economist, politician and philosopher Adam Smith (1723 - 1790); in part II On taxes and the principles of taxation of his work ”The Wealth of Nations”, he sets out four extremely important principles. It is very important if the current tax systems still observe these principles.

Before further analyzing various taxes, it is necessary to remember and acknowledge if *taxation correctness or taxation fairness* considers the advantages of some social classes but also if taxpayers in each country support the state, as far as possible, considering their real possibilities, i.e. in relation with one's income, under the protection of the state they may enjoy. It is also important to determine if *tax certainty* considers factors such as payment period, manner of payment, the amount to be paid, which are simple and easy to find out, both for the taxpayer and any other person. At the same time, it is necessary to analyse if taxpayers' interest (i.e. those with the most significant role in the state politics, social life and economics) is relevant in terms of *easiness of determining taxes* with respect to determining tax form and deadline. At the same time it is also significant to analyse *tax efficiency* which mainly refers to the fact that any tax must be determined and then collected from the taxpayer's account as amounts as little as

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possible, maybe a little more than the taxpayer can pay to the public budget; thus phenomena like fraud, tax evasion and unsupervised transactions may occur.

The precision and accuracy of complying with the aforementioned principles, as well as the ability to fulfill a number of requirements, demanded more or less vigilance from all nations. In general, many nations have endeavored, as far as they could, to levy correctly determined taxes, with a high degree of certainty, as favorable as possible for the taxpayers, judging by the maturity date, but also considering the manner of payment, and - in conjunction with the income generated to the state - with costs as low as possible for the taxpayers or population.

These principles may be affected to different degrees in those countries where tax evasion is at high rates, and the authorities' intervention is the way to restore the balance. Fraud and tax evasion create inequities between taxpayers and the most honest of them are most affected, especially when the level of these negative phenomena is very high. Therefore it is important that the state takes a firm, constant stand when fighting with these negative phenomena and endeavors to reduce their scale.

1. Tax evasion and informal economy

After a series of studies and assessments done by international rating agencies, such as Fitch Rating, expansionist fiscal policies will enhance macroeconomic imbalances and will contribute to the emergence of increased vulnerability in public finances.

The expansionism of the fiscal policy started in 2016 in Romania and was also present in 2017; the increase of production recorded led however to a higher degree of sensitivity in public finances.

This can only mean a proper environment favorable for business and competition, effective for combining factors of production. In the context of sensitized public finance, tax evasion and informal economy usually increase and not taking firm measures to diminish them leads to a no longer balanced and equal treatment of taxpayers.

Tax effectiveness plays an important role in assessing a system of taxation; this evaluation is carried out periodically by assessments and research; very useful conclusions for the business environment are drawn, only based on a series of indicators such as: Ease of paying taxes (EPT), the number of annual tax payments (NATP), the number of hours per year for tax payment (NHPYFTP), total tax rate (TTR).

A thorough research on the relation between tax evasion, underground economy and the effectiveness of tax system will emphasize the need for a stronger approach of the negative phenomenon of non-payment of taxes to the public budgets.

Tax evasion may occur in economy either by the way in which fiscal laws and regulations are drafted and adopted and not only, but also as a result using some ways to reduce or conceal the tax basis.

It can be inferred from here that the actors influencing the two ways in which tax evasion spreads may be in the first case those who legislate and regulate as well as some concerned taxpayers; in the second case there are also two categories of participants, i.e. those which carry out controls on how the taxes are determined and collected and those who either run a business or own goods or means which will be taxed.

It is necessary to limit the ability to operate incorrectly; in the first case it is necessary to research, study and analyze laws and regulations, as well as public policies both in force and to be adopted, in order to block the negative influence. In the second case a greater strictness is necessary in checking, by drafting guides and manuals on types of taxes in order to indicate the determination of each type of tax in a uniform manner, by logical diagrams. This should be done based on control tests which should be applied specifically, the legal basis of the control test, the records checked, the description of any deviations, an indication of the possible consequences which may result from failure to comply with the legislation or regulations.

These guides and manuals may be drawn up and disclosed by independent bodies or by the inspection bodies of the State or by the fiscal authority to the public and taxpayers as a proof of transparency in the treatment of taxpayers. This approach can even contribute to limiting possible abuses of the fiscal authority concerning the selection of contributors which are subject to control. Thus, the selection should be based on the assessment of risks and vulnerabilities to tax evasion and informal economy.

In order to assess the main risks for each type of tax, the main vulnerabilities arising from the applicable legislation or regulation and from improper controls and possible consequences of the most significant taxes must be identified by research, studies and investigations on several levels and then their applicability should be extended for all existing categories.

It is necessary to make an inventory of taxes owed to the public budgets (national, regional, local) to start drafting and adopting guides and manuals, followed by research, studies and analyzes and then by estimates and measurements of tax evasion, fiscal fraud and the informal economy to see which of them have the largest share in tax evasion.

Thus, it is very useful to use research, studies, international and reliable national investigation, recognized international and national data bases.

The size of informal economy depends on different elements. The literature highlights specific causes and indicators of the informal economy. Main causes:

Tax burden and the quality of governing: It is widely accepted by the literature that tax burden is one of the most important causes that lead to the proliferation of informality; tax burden is measured by an index of fiscal freedom which includes the individual and corporate income tax, as well as the share of tax burden on GDP. In addition, the paper also includes the government consumption expenditure as a share in the GDP, as it can be expected that the poor quality of the government and a higher tax burden encourage more economic activity to move into the informal sector.

At an institutional level: The World Bank produces a series of governance indicators, in particular: (a) rule of law, (b) control of corruption and (c) government stability. Businesses will understand the cost of operating in formal economy, in countries where the state of law is observed and corruption is reduced, whereas non-observance of law or a high level of corruption would encourage informal economic activity.

Open trade: Trade share in GDP indicates the size of the market and how open the country is to the world. Along with the increase in the economy, it is likely that moving economic activity from the formal sector to the informal one is more difficult to achieve. In addition, as international trade grows, it would be hard to conceal trade from the competent authorities;

Monetary indicators: The persons involved in informal economy usually carry out cash activities. Most of the small economic activities are therefore reflected in the excessive use of cash payments. This indicator is reflected in the monetary aggregate corresponding to the currency outside banks.

Labor force participation rate: After the economic activity and workers move to the informal economy, such workers should no longer appear as part of the labor force in national sampling.

Economic growth: An increased informal economy would be associated with an increased economic activity which will move from the formal economy and would indicate a decline in economic growth.

2. Assessment of tax evasion and informal economy in Romania

Extensive research is carried out at international level in connection with the recent developments concerning the existing methods of estimating informal economy.

When discussing tax evasion and informal economy, the main methodologies used for the measurement of the informal economy are considered, considering their advantages and disadvantages. These approaches can be divided into direct or indirect approaches. The most common direct approaches for the measurement of informal economy are based on studies and samples based on voluntary answers or on fiscal audits and other methods to verify compliance. Indirect approaches have primarily a macro-economic nature. These are partly based on: the discrepancy between national statistics regarding expenditure and revenue; the discrepancy between the official labor force and the real one; the approach of the "consumption of electricity" as discussed by Kauffman and Kaliberda (1996); Feige's approach on "monetary transactions"(1979); and Cagan's "currency demand" approach (1958) or others; and "Multiple Indicators, Multiple Causes" (MIMIC)

Since there is a large amount of literature on the various methods available for the measurement of the underground economy, no detailed presentation thereof is discussed here, nor the issues using these methods (including the MIMIC method). For a more detailed study see the literature, among which the

important contributions of Schneider (2010), Schneider, Buehn and Montenegru (2010), Schneider (2010, 2015), Schneider and Williams (2013), Williams and Schneider (2016).

The main methodologies used in general for the evaluation of the underground economy are used for the assessment of the informal economy, emphasizing their advantages and disadvantages. These approaches can be divided into direct or indirect approaches (including those based on models). It is a complex issue and a precise definition of the underground economy is quite difficult to provide, as it constantly develops, adjusting to taxation and regulations changes.

Measuring the size of informal economy is not a simple process. Reality shows that the persons involved in underground activities do everything they can to avoid identification and liability. However, business decision makers and governmental administrators need information, namely the size of the informal economy and tax evasion and about how many people are active in the underground economy, how often activities are carried out and the size of these activities, so that they can take appropriate decisions on the allocation of resources.

Researchers focused on samples consisting of several countries, using a variety of estimation methods to predict and quantify the size of the informal economy. The results show that, for all countries investigated, the added value in the underground economy has reached remarkable large amounts.

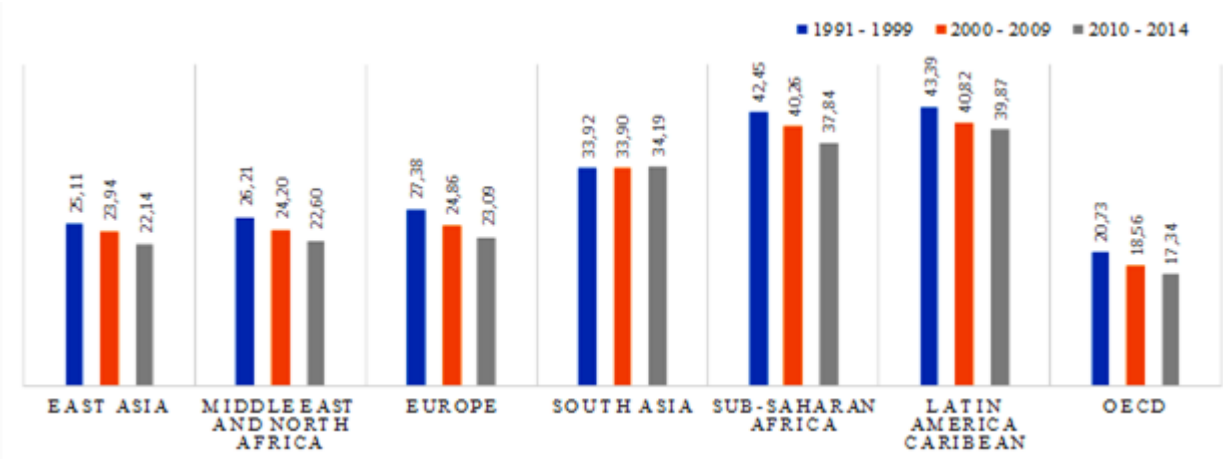
Among the main causes of the existence of underground economy can be listed as follows: legislative, institutional, conjectural and psycho-social causes. They mainly derive from the poor fiscal administration, the inability to penalize non-compliance with regulations, some causes regarding institutional transparency. The high level of taxation, tax regulations may be considered along with them, as they have become too complicated and difficult to interpret. There are mainly five main causes in OECD countries (out of which the first two are the most important): increased taxation, the difficulty of the tax system, rejection of institutions and regulations, the reduction of labor time, the reduction of the level of education.

Not taking measures to reduce informal economy and tax evasion may have serious consequences such as: using resources with other destination than the one officially established, the emergence of an additional offerings of goods and services, the increase of the budget deficit and fewer public investment opportunities, endangering public authority and power of the state, negatively affecting the social system, increase of social insecurity.

In some international assessments (Medina, Schneider, 2017), informal economies continuously decreased from 1991 to 2014, as can be observed in a grouping by region (the average, as a percentage of GDP) divided into three relevant periods, namely 1991-1999, 2000-2009 and 2010-2014, as shown in Figure no. 1 Informal economy on regions, 1991 - 2014.

The smallest underground economy has been noticed in OECD countries, followed by European countries and Eastern Asia, then the Middle East, and North Africa and South Africa countries, and the largest in Sub-Saharan Africa and Latin America and the Caribbean. These results show that informal economy decreased from 1990 until 2015 by 3-4 percentage points.

Figure 1 Informal economy by regions, 1991 – 2014 (average, % GDP



Source: Medina, Schneider 2017

New research on informal economy are published by the International Monetary Fund (IMF)[12] for 158 countries around the world and the period between 1991 - 2015 is an ample one. In this study the strengths and weaknesses of the research methods are highlighted but it also shows a comparison and a critical evaluation of the methods. The average size of the informal economy or underground economy from 158 countries during 1991-2015 is 32,3%. The largest are Zimbabwe with 60.6%, and Bolivia with 62,3% of GDP. The smallest are Austria with 9.9 percent, USA with 9.4% and 9.0% in Switzerland. New methods, in particular the new macro method, the method of Currency Demand Approach (CDA) and the model examined multiple relations consisting mainly in multiples indicators and multiple causes (MIMIC[13]) in an estimate based on the hybrid model are structured, promising approaches from the point of view of econometric, along with some assessments to new micro level. These estimates come close enough to each other to be used for the statistical offices or based on the opinion polls. We have selected several 10 countries which highlight the position occupied by each of them in table no. 1: The effectiveness of the system of taxes and duties, Romania being ranked 122nd of 158 countries. It is ranked after countries such as Bulgaria, The Czech Republic, Estonia, Hungary, Poland and above countries such as Slovakia and Slovenia. The data reveals a high level of tax evasion and underground economy in Romania, which causes difficulties in carrying out business and a lower competitive level.

Table 1: The effectiveness of the system of taxes

No.	Country	ISO	Average	Stand. Dev.	Median	Minimum	Maximum
22	Bulgaria	BGR	30.8	5.5	32.3	22.4	37.7
41	Czech Republic	CZE	17.1	2.7	18.1	12.8	20.7
49	Estonia	EST	28.8	4.3	29.6	22.5	35.5
67	Hungary	HUN	25.2	4.2	24.1	20.4	33.7
84	Latvia	LVA	26.0	4.2	25.9	19.7	32.4
89	Lithuania	LTU	27.7	4.8	26.9	20.2	35.1
119	Poland	POL	26.5	4.6	27.5	19.1	34.5
122	Romania	ROM	30.1	4.2	31.1	22.4	36.0
129	Slovak Republic	SVK	16.6	2.8	17.9	12.5	20.8
130	Slovenia	SVN	26.0	3.2	26.3	19.5	31.4

Source: Source: Medina, Schneider 2017

As a result of research and international studies, the Paying Taxes Report 2017[14] shows that for Romania in 2015 as compared to 2014, the number of hours needed for paying taxes has increased to 161 (from 159), the number of annual payments which must be done by a taxpayer for tax payment were ranked at the same level, i.e. 14 payments, and the share of taxes in the total profit decreased significantly, from 42,0% to 38.4% (with 3.6 pp on account of reducing social contributions paid by the employer from 20,8% to 15,8 %). Thus, a medium-scale company in Romania made 14 tax payments during a year (it is ranked above the European average of 11.8 annual payments, but far below the average at the global level of 25,0 annual payments) and allocated and used 161 hours of specific intellectual effort for the calculation, filling in and submitting tax statements (under the European average of 164 hours, respectively, the average of 251 hours at global level). As for the size of the total taxation rate (the share of taxes and social contributions for the benefit of a medium-sized company), Romania ranked better in 2015 at a level of 38.4%, under the European average of 40,3%, respectively under the average of 40.6% at global level. I have selected for the analysis the same 10 countries from the data presented in the report, as well as in the previous study published by the International Monetary Fund (abbreviated names of the countries are as follows: Estonia = EST; Latvia = LVA; Slovenia = SVN; Lithuania = LTU; Bulgaria = BGR; Slovak Republic = SVK; Poland = POL, Czech Republic = CZE , Hungary= HUN; Romania = ROM) as there is a relation between tax evasion, the underground economy and the effectiveness of the system of taxes to be examined more closely.

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[12] The material may be read at the address https://www.imf.org/en/Publications/WP/Issues/2018/01/25/Shadow-Economies-Around-the-World-What-Did-We-Learn-Over-the-Last-20-Years-45583

[13] The concept of the MIMIC model is to examine the relationships between a latent variable "size of shadow economy" and observable variables in terms of the relationships among several observable variables by using their information of covariance

[14] The report for 2017 is carried out with the last updated data on July 1, 2016 and will relate to the fiscal year 2015 (data relating to the taxation of companies are available after the consolidation of financial statements).

Table 2: The effectiveness of the system of taxes

	EST	LVA	SVN	LTU	BGR	SVK	POL	CZE	HUN	ROM
	Ease of tax payment (position)									
2012	32	49	54	56	81	102	113	122	124	134
2013	28	40	42	20	89	100	87	119	88	52
2014	30	27	35	49	88	73	58	122	95	55
2015	21(32)	15(26)	39(67)	27 (50)	83(99)	56(72)	47(62)	53(80)	77(89)	50 (43)
	Number of tax payments per year									
2012	7	7	11	11	13	20	18	8	12	39
2013	7	7	11	11	13	20	18	8	11	14
2014	8	7	10	11	14	10	7	8	11	14
2015	8	7	10	11	14	8	7	8	11	14
	The number of hours per year for tax payment									
2012	81	264	286	175	454	207	286	413	277	200
2013	81	193	260	175	454	207	286	413	277	159
2014	81	193	245	171	423	188	271	405	277	159
2015	84	161	245	171	453	192	271	234	277	161
	Total rate of taxation									
2012	49.4	35.9	32.5	43.1	27.7	47.2	41.6	48.1	49.7	42.9
2013	49.3	35.0	32.0	42.6	27.0	48.6	38.7	48.5	48.0	43.2
2014	49.4	35.9	31.0	42.6	27.0	51.2	40.3	50.4	48.4	42.0
2015	48.7	35.9	31.0	42.7	27.0	51.6	40.4	50.0	46.5	38.4

Source: The World Bank

From the perspective of the easiness with which a company may start business processes relating to the reimbursement of VAT, respectively the control necessary for the correction of errors in the income tax return, *Romania is among the countries whose procedures are considered to be carried out with greater difficulty*, but, compared with other Member States of the European Union, it is positioned better than Italy, Bulgaria and Hungary. As a whole, in 2015, Romania has made *some progress on turning the payment of taxes more effective*, being middle ranked among Central and Eastern Europe countries, before the Czech Republic (globally ranked the 53rd), Slovakia(the 56th), Hungary (the 77th), Bulgaria (the 83rd), but behind Latvia (the 15th), Estonia (the 21st), Lithuania (the 27th), Slovenia (the 39th) and Poland (the 47th). In Table no. 2: The effectiveness of the tax system, above, for comparability with the classification for 2012 - 2015 on the ease of tax payment, carried out in accordance with the previous methodology (as per Paying Taxes reports, 2014, 2015 and 2016 editions), the positions for 2015 were determined without taking into account the new sub-index between brackets. A *slight deterioration of Romania's position* within NSM10 in 2015 can be noticed, as compared to 2014, as a result of methodology changes.

Number of tax payments per year is an indicator showing the total number of paid taxes and contributions, the method of payment, the frequency of payments, the frequency of filling in tax statements and the number of the agencies involved in the collection of taxes in the case of companies in their second year of activity. A single payment only is recorded when payment is made electronically, regardless of the frequency of payments.

The number of hours per year for tax payment is an indicator which shows the time required for the preparation, filing in documents and payment of the main taxes: income tax, social security and labor taxes and other charges.

Total tax rate is an indicator which shows the share of the amounts related to taxes and social securities and compulsory social contributions paid by a company, starting with its second year of activity, in the commercial profit.

However, a greater difficulty of procedures is an increase of bureaucracy, which makes the companies and taxpayers choose on a lot of occasions not to waste extra time with statements and in some cases even not to declare a part of their activities, which helps increase tax evasion and underground economy. These difficulties are often quantified in additional costs. For this purpose, it is necessary to permanently analyze laws and regulations, as well as public policies which contribute to the growth of tax evasion and underground economy. The analysis must be carried out on types of taxes and following these investigations to establish guides on types of taxes, which shall detail well enough the steps that must be followed in order to achieve correct and effective taxation in terms of a lower number of payments, in the

number of hours per year for the payment of taxes. Ways for reducing tax payment in time, for periods of minimum 5 years based on estimates and projections, of total tax rate, must also be indicated for each tax.

Conclusions and suggestions

In conclusion, drafting guides and textbooks on types of taxes and publishing on the internet pages of the central, regional, local tax authority represents an important step in order both to improve transparency in carrying out audits and to educate the taxpayers. I also suggest certain measures which include some useful implications for decision makers, which may contribute to the reduction of tax evasion and underground economy:

- One should keep in mind that major reductions in rates of taxation will not reduce substantially the underground economy, but might be able to stabilize it;

- The marginal rates of taxation are more relevant for the work decisions of human economy than for the average rates of taxation and replacing direct taxes with the indirect taxes is unlikely to contribute to the improvement of the tax system efficiency;

- More frequent fiscal audits based on guides and control manuals and more severe penalties for tax evasion can reduce the size of the informal economy;

- Governmental decision makers should focus on the legalization of certain underground economic activities, for example by liberalization of labor market;

- Regulations liberalizing reforms and making the economy more competitive reduce incentives for corruption and encourage firms to move from the underground economy to the official one. The governmental decision makers should focus on the rule of law and on the strict application of a minimum set of needed rules, instead on the increase of the number of regulations.

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THE RATIONAL ANTICIPATIONS REGARDING ”INFLATION - UNEMPLOYMENT” TRADE-OFF

Monica Florica DUTCAȘ[15]

Abstract

The paper starts from the premise that rational expectations theory invalidates the Philips Curve by demonstrating that monetary policy is long-term ineffective in terms of unemployment. The argument of the paper is the need to evaluate the trade-off inflation unemployment in the literature and how it verifies the precision of the Philips Curve model for better prediction of inflation and unemployment and their relationship. Identifying the Philips Curve is important when designing macroeconomic policy strategies on inflation, unemployment, economic growth, the shape of the curve being crucial to the direction of economic policy. Inflation and unemployment are structural components of market economy, each of them constitute dangerous macroeconomic dis-equilibriums, and in the Romanian economic evolution, in certain periods, we can consider that each of them exhibited major threats for development and progress. Some conclusions are presented regarding the data which verify the short term Philips Curve model precision in order to show the signification of the relationship between inflation and unemployment on 1990 – 2017 period for Romania and the possible consequences on the strategic macroeconomic policies.

Keywords: *Rational expectations Theory, Philips Curve Model, inflation, unemployment, Romania*

JEL Classification: *C01, E 24, E 31*

Introduction

Unemployment is one of the chronic and incurable "diseases" of the modern and contemporary economy caused by the evolution of economic disequilibrium, the cyclicality of economic activity, the emergence of new factors of influence, the incidence of technical and technological innovation. Because it is present more or less, in all countries, almost naturally, unemployment is characterized, globally and structurally, by causes, durations, by forms and types, in several respects, by operating a categorically accepted system.

Inflation, defined by the decline in the purchasing power of a monetary unit, is also present in any one of the economies and may be a serious impediment to the implementation of a growth policy. A good rational anticipation of inflation can help eliminate resource deficit and reduce mistrust in public policies.

The Dilemma of Inflation-Unemployment has so far gone through three stages of theoretical and empirical history.

The first theory developed in 1958, based on the observations of a 90-year period, beginning in 1861, in the UK through the contribution of Alban William Philips. Its famous curve highlighted a reversed relationship between inflation and unemployment, concluding that unemployment is caused by lack of inflation, and governments have to choose between having inflation and using it to fight unemployment or to accept unemployment and reduce inflation . According to Samuelson, in the modern market economy, not "labour" but "man is the commodity", and the state has a role in elaborating and supporting economic policy that ensures the full use of the labour force in accordance with the principles of "welfare for all "and" social peace "in the country as well as internationally. Samuelson and Solow have heavily popularized the negative inflation-unemployment correlation.

The second stage between 1960 and 1975 belongs to Milton Friedman, Edmund Phelps, and after 1975 the contributions of Robert Lucas and Thomas Sargent are noted. Milton Friedman introduced the concept of the Natural Rate of Unemployment (NRU), designating that corresponding level of unemployment as stable inflation, and highlighted the long-term Philips curve as a vertical line. Friedman and Phelps introduced the idea of an erroneous inflation expectations at the economic agent level, which influences salaries and prices and, obviously, the level of unemployment.

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Lucas and Sargent, they have demonstrated a positive correlation between inflation and unemployment on the basis of statistical records, stating that there is a huge econometric failure in the Philips curve.

In a third step, a different approach consistent with the Keynesian mainstream is that of Robert J. Gordon who argues that the past inflation rate is not limited to the formation of inflationary expectations but also includes an effect of pure persistence caused by salary and price fixed in terms contracts as well as specific price differences for raw materials and finished products. The Gordon model in an econometric approach is known as the triangular model.

While theoretically, the debates continue and the empirical knowledge in Romania kept pace with the theoretical evolutions, being signaled in another paper a series of analyzes and studies on the inflation-unemployment relationship.

In this paper, a Philips Curve for Romania 1990-20017 is constructed econometrically by a multifactorial linear regression model, and the final is dedicated to several conclusions about the results obtained.

The nature of the research is applicative, aiming on a theoretical basis, based on empirical data, to identify a form of the Philips curve in Romania that allows a better prediction of the phenomena of unemployment, inflation and their interdependence.

Purpose and objectives

The paper aims to build and verify the Philips Curve model in Romania during 1990-2017 and to provide an insight into how it can contribute to strategic growth policies.

In this sense, a first objective is to establish the theoretical foundation of the concepts of unemployment, inflation, the Philips curve, the theory of rational expectations, which by their understanding and analysis are the support for the decision makers of wage, fiscal, budgetary, monetary policy.

The second objective is to build and verify the Philips Curve for Romania, the period 1990-2017.

Methodology

The methodology used is in agreement with the subject being focused on econometric analysis and statistical-mathematical analysis. The statistical and mathematical analysis allowed to identify the main trends of the inflation and unemployment rates, the interpretation of the statistical situations to clarify the economic reality.

The econometric analysis used linear regression, the multifactorial linear model. In building the model we used the Eviews 9.5 program.

The data used were annual, 1990-2017.

Data Source: EUSF (EU Labor Force Survey) at European level EUROSTAT.

The results of the analyzes led to the formulation of conclusions regarding the anticipation of the inflationary phenomenon, the evolution of unemployment and recommendations for use in a practical purpose for strategic directions of economic policy or in the development of this research.

Phillips curve - trade-off inflation-unemployment

Keynes believes that the unemployment is due to insufficient aggregate demand. The Keynesian concept starts from the analysis of the classic and neoclassical scheme. It highlights the limits of previous approaches to the fact that the labour market is not independent of the commodities market. The equilibrium of the goods market implies that economies and investments are balanced, but this balance is not necessarily compliant with the full use of available labour, because the level of investment (high or low) is generated by the financial options of the capital holders and can generate the under-utilization of the labour force.

In the context of globalization and the growth of the capital market's role, an economic model has been imposed that includes the third market, respective the capital market, wich determines new types of non-Walrasian equilibrium that underlie new mechanisms of unemployment influenced distinctly by each factor in the mobilizing or restrictive sense.[16] [2] The indicator with the minimum value is defined as a restrictive

[16] Pavelescu, F.M., " Methodological implications of the extension of the number of considered markets in a non-Walrasian equilibrium model ", 2011, p.8-9. The model was tested by the author on the case of Romania,

factor , while the maximum value indicator is considered a mobilizing factor of the economic activity. Two types of Keynesian unemployment were identified, namely:

- pure Keynesian unemployment, capital being the mobilizing factor.

- relative Keynesian unemployment, with the labor force being the mobilizing factor.

For repressed inflation, as with Keynesian unemployment, two types are identified. In this model the mobilizing factor is the demand for goods and services and the factor of restrictive factor is the factor of production, as follows:

- repressed inflation resulting from lack of capital (relative or absolute),

- the suppressed inflation caused by the labour deficit (relative or absolute).

The classic unemployment in the model with three markets it is there characterized as non-Walrasian equilibrium in which labour is mobilizing factor and the limiting factor is capital. This model may be considered appropriate for the analysis of short-term economic activity and the forecast of unemployment types with an influence on macroeconomic policy.

After Keynes, the analysis of inflation was the focus of the debate with the contribution of Alban William Philips to the so-called Phillips curve. Its famous curve highlighted a reversed relationship between inflation and unemployment, concluding that unemployment is caused by lack of inflation, and governments have to choose between having inflation and using it to fight against the unemployment or to accept unemployment and reduce inflation. Samuelson and Solow have heavily popularized the negative inflation-unemployment correlation.

The theory of rational expectations is the core of the new classical macroeconomics.

The theory of rational expectations is foundammented on 2 ideas:

- People know and use all the information and economic theories on which economic policy measures are based, which mean that a particular economic agent uses all the information to which he has access to formulate his forecasts; the decisions of economic agents depend not only on the objective characteristics of the economic and social environment in which they operate, but also on their expectations about the future

- prices and wages are flexible (it is adapting quickly to the market changes, has establishing an equilibrium).

State economic policy can only succeed if the government has better information than trade unions or would influence the inflation by measures and methodes that trade unions can not anticipate .

The following considerations must be mentioned:

- inflation is identified in dynamics and its measurement is based on the general price level, that is expresse the relative price variation;

- unemployment may be measured both in absolute value as unemployment mass, relative size and the unemployment rate, and if it is considered the duration of unemployment can be measured their dynamics in the same relative or absolute sizes.

When the state intervenes in reducing unemployment, a change in inflation occurs, the price of this inflation is called the Sacrifice Rate.

Mathematical expression:

$$u-u^{*} = (-1/\beta)*P_t-P_{t-1} ; 2<\beta<3$$

where:

P_t = price in the current period
P_{t-1} = price in the previous period;
u = unemployment rate;
u^{*} = natural unemployment rate.

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determining the types of unemployment he faced between 1991 and 2004, being a useful tool in designing and implementing macroeconomic policies.

The economic interpretation: every percent decline in the inflation requires an increase in the unemployment by 1/β percent compared to its natural level.

The theory of rational expectations invalidates the curve of Philips by demonstrating that monetary policy is inefficient in the long run regarding to the unemployment rate.

Philips Curve as type as New Keynesian Phillips Curve (NKPC) do not replied to inflation inertia, although it is actually noticed in reality of economy. Thus, a hybrid version of the Phillips curve, proposed by Jordi Gali and Mark Gertler (1999), takes into account that expectations are not purely anticipatory, but may have an adaptive component. In fact, they developed a particular case of the NKPC, which measures marginal cost as a determinant of inflation instead of an ad hoc exit gap.

Gali (2003) defines the output gap as: "deviation of output from the equilibrium level in the absence of nominal rigidities." This definition suggests a "forward-looking" Phillips curve: current inflation depends on future inflation expectations and the current output gap.

Various economic and econometric models have been developed in the literature, which are actually versions of the Phillips curve. These are distinguished by the measure proposed by the authors to assess the influence of economic activity on prices, the forms of expectation of the economic agent, as well as on the indicators chosen for assessing the impact of supply shocks.

Gordon himself (2013) proposes to use a specification within his own triangular model with adaptive anticipations, the short-term unemployment gap (responsible for the economy's demand gap) and a range of variables such as import prices, productivity trend dynamics and product price fluctuations in the food and energy industries to incorporate supply shocks.

Aleksandra Halka and Jacek Kotlowski (2013) through a study by National Bank Poland estimates a Phillips curve for the prices of each consumer basket component based on an adaptive anticipation model but which includes the GDP deviation versus potential as a factor to illustrate the influence of demand, namely the nominal effective exchange rate, external inflation and the price of food and oil for the supply. Jaromir Baxa, Miroslav Plasil and Borek Vasicek (2013) Czeh National Bank estimates various forms of the Phillips curve, testing a multitude of relevant indicators for assessing inflationary demand, including the GDP gap, the unemployment gap (including the short one), real labor cost and survey data on the degree of utilization of production capacities and factors limiting output from the perspective of the deficit of labour force.

However, all these studies reveal that the results of the Phillips curve estimate are sensitive to model specifications, so that the magnitude of the impact of economic activity on the inflation differs according to the measure used to quantify the demand deficit. None of these measures succeeds to systematically capture the evolution of prices in the economy. Under these circumstances, it seems that there is currently no one single Phillips curve concept, so that the use of a single specification is proving to be insufficient to substantiate monetary policy decisions, and a more comprehensive analysis is needed, a fact that has been recognized and the European Central Bank ECB (2014, 2015).

US economist N. Gregory Mankiw, a professor at Harvard University, defines the natural rate of unemployment as the average unemployment rate around which economic fluctuations are taking place. He calculates this indicator as an average of the annual unemployment rates over a period of 10 years prior to and 10 years after the time (year) for which the analysis is performed. Using this calculation, he determined a natural unemployment rate for the US economy of between 4% and 7% for a period of 45 years between 1945 and 1990.

In recent years, the debates about linearity in the Phillips curve have been raised.

Since the outbreak of the international financial crisis, most economies have been characterized by relative price stability, which has led economists to declare a weakening of the negative inflation-unemployment relationship.

We can conclude that the inflation-unemployment relationship may be positive or negative depending on the source of the shocks and the policy response as well as the length of the delayed responses.

Economic research is geared towards exploring aspects of process dynamics, expectations-building, or policy adequacy.

A convex Phillips curve assumes that inflation may not drop in response to an excess deficit on the demand side. An extreme shape of convexity is represented by an asymmetric curve, in which case inflation reacts to an excess demand only if the latter is above a certain level.

In the US, there are studies and researchers suggesting that the shape specific to the Phillips Curve is convex, while Gordon (1997) advocates a linear curve, and Joseph Stiglitz (1997) he is even in favor of a concave shape.

In 2000, George Perry estimates the Philips Curve through a model in which the parameters can be changed over time. The author identified the anticipated inflation rate at a low level between 1950 and 1960, raised until 1970 and then lowered to the present. George Akerlof, William Dickens and George Perry propose in 2006 a model that takes into account the correlation between inflation and unemployment not how people shape their antcipations, but also how they use it.

In Romania, studies on the functional form of the Phillips curve are reduced, partly because of the challenges associated with the collection of a long time series and on the other side by the necessity corresponding harmonization for the specific economy.

There have been constant concerns in Romania about the relationship of inflation - unemployment and influences in public policies, some of which have been presented in the paper "Inflation-unemployment relationship - Empirical investigation on 1990-2017 period on Romania"[17].

Checking the philips curve for Romania in the period 1990-2017

In order to highlight the relationship between inflation and unemployment, annual data from the EUROSTAT database and the National Statistics Institute (INS) database were used.

A multifactorial regression was used as a model in which the variable was the inflation rate (r_infl), and as an independent variable the inflation rate of the previous period was used as the expression of the anticipation inflation rate, the inflation rate in the national definition (rs), the number of unemployed in the ILO definition (SB) and real GDP growth rate (r_GDP).

In modeling a multifactorial regression of the form was used:

$$R_{INFL}=C(1)*RS(-1)+C(2)*D(R_{GDP})+C(3)*D(SB(-1))+C(4)$$

It is worth noting that the chosen model does not have the classical shape of the Philips curve, the GDP gap has been replaced by the GDP growth acceleration variable (R_GDP) to highlight the extent to which an acceleration of growth could influence the inflation rate . Furthermore, it was chosen to include the number of unemployed in the ILO definition given the need to capture the extent to which they affect the inflation rate.

Running the model led to the following coefficients:

$$R_{IPC}=8.147145229*RS(-1)-2.110692074*D(R_{GDP})-0.0002014553594*D(SB(-1))$$

There is a positive correlation between inflation and the unemployment rate, but negative with the GDP acceleration and the number of ILO unemployed.

Granger's tests have shown that the hypothesis that the inflation rate causes Granger's unemployment rate to a lag of 1, as can be seen from Table no.1.

[17] Dutcas, M. presentation at the conference INTERNATIONAL SCIENTIFIC CONFERENCE "ACCOUNTING AND FINANCE - UNIVERSAL LANGUAGES OF BUSINESS" Third Edition - March 2018, Pitesti, Romania. Also, parts of this paper were taken up in the chapter "A Causal Analysis of Sustainable Unemployment", published in the book "GROWTH, DEVELOPMENT AND ECONOMIC SUSTAINABILITY IN ROMANIA (2007-2017)", Editor Romanian Academy, Bucharest, 2018

Tabel 1. Granger test for inflation rate and unemployment rate

Pairwise Granger Causality Tests Sample: 1995 2017 Lags: 1			
Null Hypothesis:	Obs.	F-Statistic	Probability
RS does not Granger Cause R_INFL	21	1.15325	0.29706
R_INFL does not Granger Cause RS		7.63308	0.01282

Source: author's work

Testing the stationarity of the series with the Augmented Dickey-Fuller test (ADF) indicates that the series are not all stationary in the level, but only the unemployment rate series and the inflation rate, while the real growth rate of GDP and SB (the number of BIM unemployed) in order of difference 1. Table no. 2 shows the results of the ADF tests for the series used in the model.

Table 2. Stationarity test for the series used in the model

INDICATOR	T statistic	Critical value	T statistic	Critical value	T statistic	Critical value
	none	none	constant	constant	Constant and trend	Constant and trend
Inflation rate (r_infl)	-28.813400	-2.692300*	-20.993800	-2.650000***	-10.872600	-3.270000
D (r_infl)	-3.719800	- 2.708000	-2.966917	-2.666593	-0.983845	-4.667883
DD (r_infl)	-1.572336	-2.728252	-1.211595	-3.959148	-5.303013	-4.667883
Unemployment rate (rs)	-1.239900	- 2.679700***	-1.562990	-2.646119	-2.210822	-3.261452
D (RS)	-4.376183	-2.685718	-4.295567	-2.650413	-4.167450	-3.268973
DD (RS)	-5.182546	-2.699769	-5.005745	-2.660551	-4.811756	-3.286909
Number of unemployed BIM (SB)	-0.925830	-2.685718	-1.980120	-2.650413	-8.333016	-3.261452
D (SB)	-8.176113	-2.685718	-8.022544	-2.650413	-7.326395	-4.498307
DD (SB)	-6.137599	-2.699769	-5.796642	-2.660551	-5.427266	-3.286909
Real GDP Growth Rhythm (r_GDP)	3.014303	-2.679735	0.315628	-2.646119	-1.870554	-3.261452
D (r_GDP)	-2.418974	-2.685718	-3.121744	-2.650413	-3.178809	-3.268973
DD (r_GDP)	-6.769296	-2.692358	-6.637287	-2.655194	-6.430265	-3.277364

Source: author's work

* with the probability of 1%
** with the probability of 5%
*** with the probability of 10%

Adjustment errors or residues are also important for validation of the model and the test subject its correlation, distribution, indicating heteroscedasticity qualitative study of the equation.

According to the statistical results, the coefficients of the equation are stable.

All coefficients and tests are presented in the next, Table no 3.

Table 3. The multifactorial model used

Variable	coefficient	Std. error	t-Statistic	Prob.
RS (-1)	8.147145	1.577851	5.163444	0.000100
D (R_GDP)	-2.110692	0.929460	-2.270879	0.037300
D (SB (-1))	-0.000201	0.000027	-7.327396	0.000000
C	-36.114020	12.15594	-2.970894	0.009000
R-squared	**0.849489**	Mean dependent var		22.085000
Adjusted R-squared	**0.821269**	SD dependent var		35.763970
SE of regression	15.119800	Akaike info criterion		8.446744
Sum squared resid	3657.733000	Schwarz criterion		8.645890
Log likelihood	-80.467440	F-statistic		30.101610
Durbin-Watson State	**2.267889**	Prob (F-statistic)		0.000001

Source: author's work

Note that adjusted R^2 and R^2 have a level of 0.8495 and 0.82127 respectively, indicating that the chosen factors explain the pattern well enough. Also, the Durbin-Watson statistic is around 2, or 2.26788, indicating that the residues are not correlated.

Conclusions

We presented in the paper a model that does not theoretically follow the classical form of the Phillips curve because we have replaced the GDP gap with the GDP growth acceleration variable D (R_GDP) to highlight the extent to which an acceleration of growth could influence the inflation rate and we noticed a negative correlation. We have opted to include the number of the unemployed in the ILO definition to capture the extent to which they influence the inflation rate and we also have a negative correlation.

Analyzing the validity of the models, it is noted that they do not pass all the tests requiring different adjustments.

It is certain that in an economy, unemployment and inflation are a serious problem, and identifying the impact of each of the components of the model is important for designing macroeconomic policy strategies on inflation, unemployment and growth. Empirical research can continue to test the linearity of the Phillips cube thus obtained, its form being essential to the direction of monetary policy.

With information on ILO unemployment, the unemployed who are actively seeking jobs, it may continue this research with verification of the vacancies - unemployment, it means a Beveridge's curve, that seems it is also change itself with the time, which suggests the possibility of identifying a link between the two curves.

Policy measures can be set and targeted by type of unemployment or the type of inflation, but given the emergence of behaviors, action must be taken to considered all of this is strongly influenced by the behavior of economic actors, which is based on their own economic rationality models, based on their own value system.

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THE CONCEPTUAL, METHODOLOGICAL, AND EMPIRICAL ASPECTS REGARDING BUDGETARY MULTIPLIERS

Ionel LEONIDA[18],

Abstract

This paper will present a brief presentation of some conceptual and methodological aspects regarding the fiscal and budgetary multipliers in general, and then a set of budgetary multipliers for Romania for the period 2005-2017 will be calculated. The research methods used in the thesis focuses on evaluations of the theory, studies and interpretations in the literature on tax-budgetary multipliers, methodological analysis, algebraic calculation and interpretation of the economic significance of the obtained results. The results expected to be obtained can be concretized in an evaluation table of the impact of the budgetary multipliers on the economic dynamics in Romania during the reference period.

Keywords*: multipliers, budgetary,fiscal, economic cycle*

JEL classification*: E60, E61, E62*

Some conceptual and methodological aspects regarding fiscal and budgetary multipliers

The fiscal-budgetary system is an economic system associated with the real economy, having several properties, such as: it presents a certain rigidity (changes in the fiscal-budgetary system - changes of fiscal-budgetary norms or fiscal-budgetary methodologies can be done only by approving Parliament or, in extreme cases, Government Emergency Ordinances); refers to public financial funds and is (through fiscal-budgetary policy) an important macroeconomic adjustment tool.

In the fiscal-budgetary system, the inputs are normative variables, on the one hand, and behavioral, on the other.

The normative variables are: tax rates or social contribution rates, tax bases, exemptions from budgetary obligations, deferrals, exonerations, etc. All this is the input of the fiscal inputs. There is also a vector of budgetary input containing components such as budget commitments; budget expenditures ceiling; normative budget expenditures, etc.

Behavioral variables are: average or marginal inclination towards consumption; the average or marginal inclination towards saving; the mean or marginal inclination towards importation; behavioral tendencies of the Engel type.

As far as the output of the fiscal-budgetary system is concerned, it should be seen as an effect of the input on the real economy variables: GDP; consumption; investment; productivity; unemployment; balance of trade balance; balance of services balance.

Depending on the way the output with the normative input is associated, it is possible to determine fiscal-budgetary multipliers defined as follows:

- the fiscal multipliers - is calculated by the ratio between the effect in the most aggregated real economy and the change of a regulatory input component specific to the budgetary revenues;
- the budgetary multipliers - is calculated by reporting the most aggregate output of the real economy to the volume of government expenditures, especially investment, as they only have a multiplier effect on GDP;
- the fiscal-budgetary multipliers - is calculated by reporting the most aggregate output of the real economy to a combination of fiscal variables, ie budget variables.

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Fiscal multipliers are the number of units with which output varies, in our case - GDP (considered the effect of the most aggregated real economy), when the input - in our case - the tax rate varies with unit. As for the tax rate, it can refer to any tax (personal income, profit, value added tax).

We note that the fiscal multiplier (*mf*) has as input (causal factor), the marginal reaction of the tax rates. The other types of reactions after which the multiplier can be examined generally are not formally discretionary, but are the effects of economic behaviors.

For the fiscal multiplier, the general calculation methodology is:

$$m_f = \frac{\Delta GDP}{\Delta ri},$$

where:

m_f = the fiscal multiplier;

ΔGDP = the absolute variation on GDP;

Δri = the absolute variation of the tax rate.

The economic significance of the marginal tax multiplier expresses, in monetary terms, how many monetary units vary the GDP when the tax rate varies with a unit.

Budgeting multipliers are the number of units with which GDP varies when budget expenditures changes by one unit. As regards budgetary expenditures, it may refer to: the total expenditures of the general consolidated budget; budget spending on investment; to budget expenditures with human capital (education, health).

We note that the causative multiplier in the budgetary area (mb) is specific to the behavioral reactions of the various formal categories of government expenditures that capture the economic orientation / rationality of the state but, above all, the multiplication effects on output- in the present case, of GDP.

Our interest in analysis is focused on the calculation methodology of the multiplier in the budgetary field, based on two types of reactions of the economic behavior, respectively in absolute size (variation) and in the size of the type of elasticity (variation rate).

For the budget multiplier calculated by the marginal response, the calculation formula is:

$$mb_{va} = \frac{\Delta GDP}{\Delta Ch} = \frac{GDP_i - GDP_{i-1}}{Ch_i - Ch_{i-1}},$$

where:

mb_{va} = the budget multiplier (of budget expenditures), in absolute amount (variation);

ΔGDP = the absolute variation on GDP;

ΔCh = the absolute variation in budget expenditures.

The economic significance of the marginal-sized budget multiplier: expresses in monetary terms how many units the GDP varies when total public expenditures or structure varies with one unit.

For the budget multiplier calculated by the elasticity (coefficient) type reaction, the calculation formula is:

$$mb_{rv} = \frac{E_{GDP}}{E_{Ch}} = \frac{(GDP_i - GDP_{i-1})/GDP_{i-1}}{(Ch_i - Ch_{i-1})/Ch_{i-1}},$$

where:

mb_{rv} = the budget multiplier (of budget expenditures) in the size of the type of elasticity (coefficient);

E_{GDP} = the rate of change in GDP;

E_{Ch} = the rate of change in budget expenditures.

The economic significance of the budget multiplier in the size of the type of elasticity (coefficient) expresses the number of percentages by which GDP varies when total public expenditures or in its structure varies by one percent.

Empirical aspects regarding a set of budgetary multipliers calculated for Romania for the period 2005-2017

Budgetary, utility and interest normative causes for our work are those that refer to variations in the following categories of public expenditures:

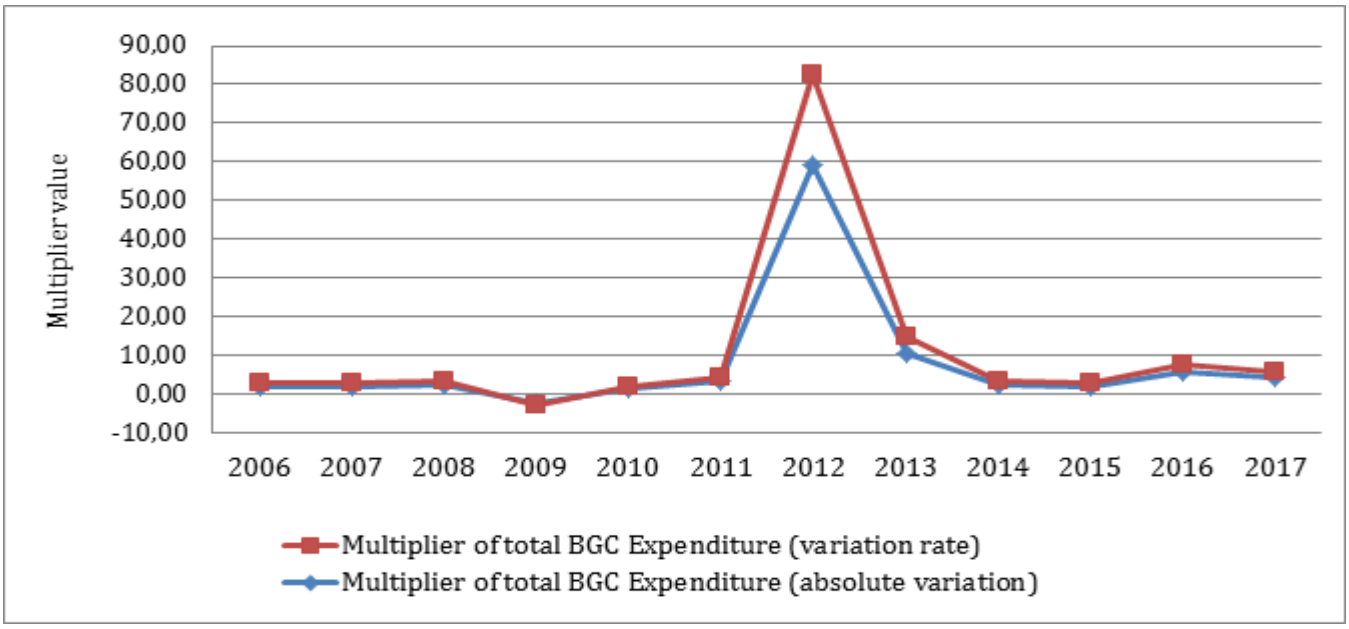
- Total consolidated budget expenditures (BGC);
- Public expenditures on health;
- Public expenditures on education;
- Public expenditures on human capital (considered to be health and education);
- Public expenditures on investment.

On the basis of the presented methodology, we calculate the multipliers in the budgetary domain that have as a causal factor these categories of public expenditures, by reacting in absolute size (variation) and by reacting in size to the type of elasticity (variation rate).

Multiplier of total consolidated budget expenditures

This multiplier shows how much GDP varies in total consolidated buget expenditures. We find, based on the two calculation methodologies, that the multiplier records positive or negative values, above or subunits, its size being dispersed in the range of -2.03 and 59.42 in the variation abolished and in the range -0.77 and 23, 37 in the rate of variation, the lower and upper limits corresponding, in both situations, to 2009 and 2012, respectively.

Figure 1. Evolution of the multiplier of the total consolidated budget expenditures (calculated on the basis of absolute variation and the variation rate) in Romania for the period 2006-2017



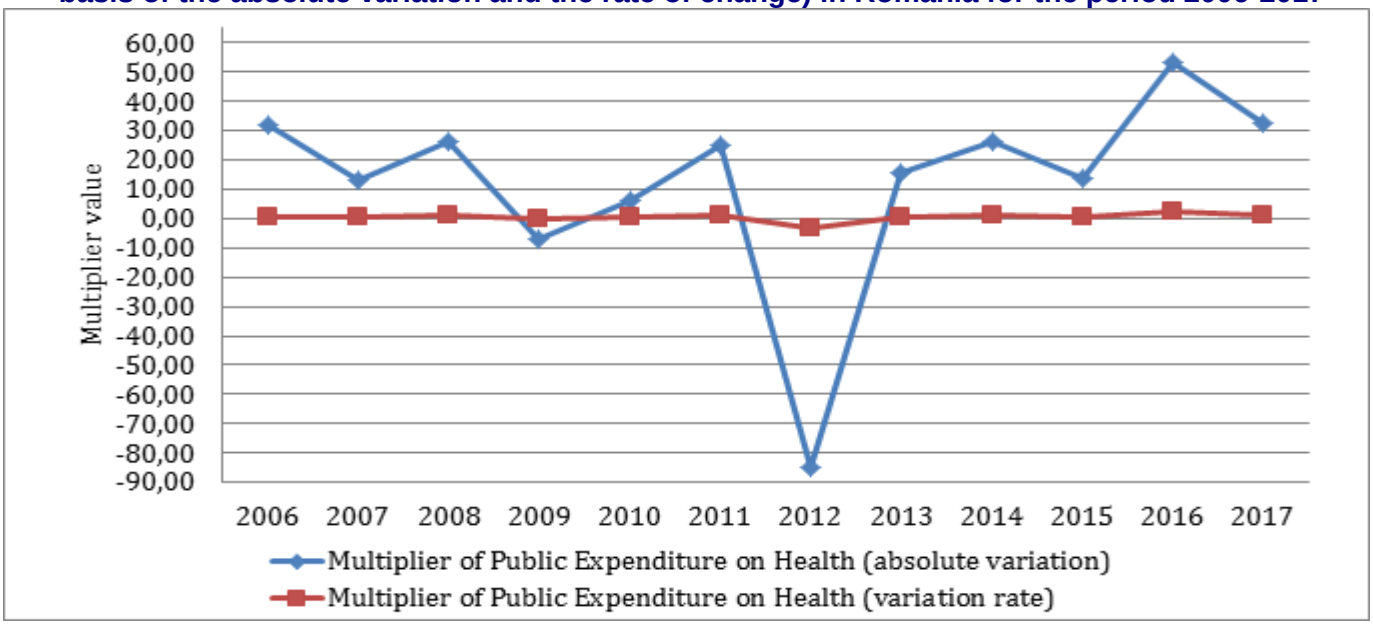
Source: developed by the author on the basis of the data in Annex 1.

Calculated by the two methods, the multiplier of total BGC expenditures registered relatively symmetrical evolutions in terms of their size over the entire analyzed period.

Multiplier of the public expenditures on health

This multiplier shows how much GDP varies in public health expenditures. We find, based on the two calculation methodologies, that the multiplier records positive or negative values, supra or subunits, its size being dispersed in the range of -84.62 and 53.19 in aborted variation and in the range -3.50 and 2, 23 in the rate of variation, the lower and upper limits corresponding, in both situations, to 2012 and 2016 respectively.

Figure 2. The evolution of the multiplier of the public expenditures on health (calculated on the basis of the absolute variation and the rate of change) in Romania for the period 2006-2017



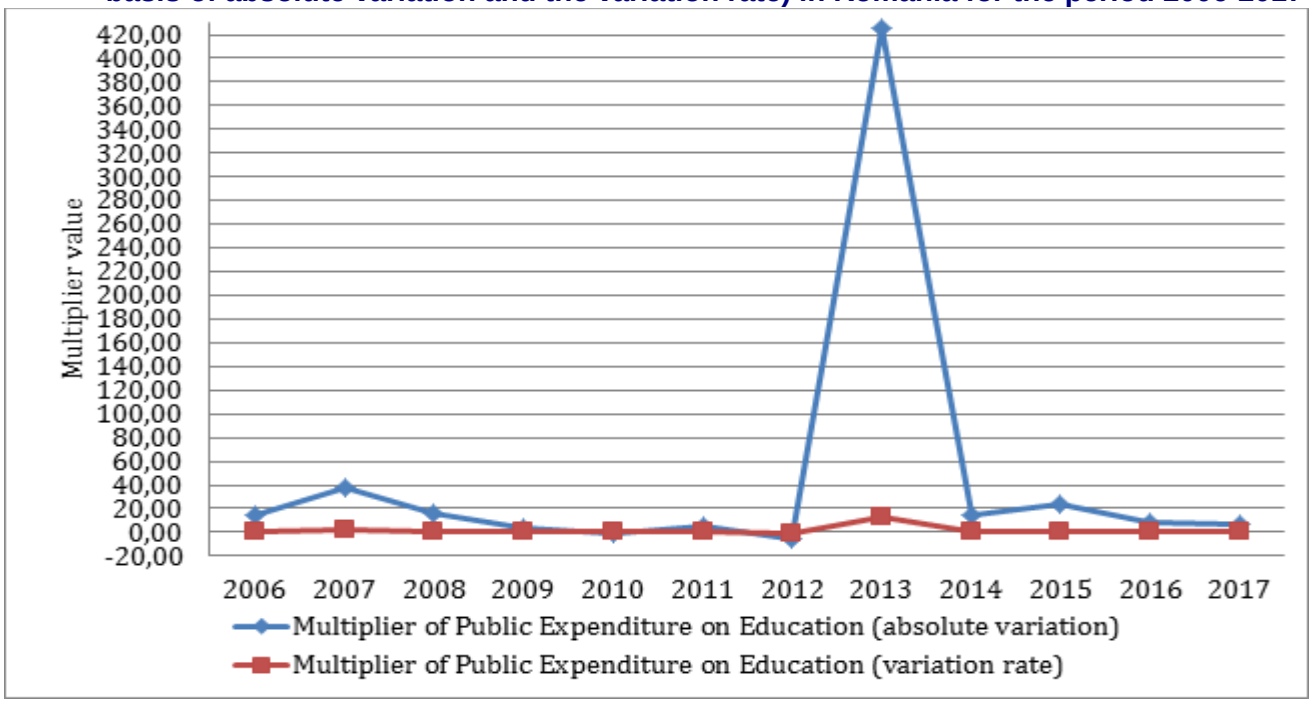
Source: developed by the author on the basis of the data in Annex 1.

Calculated by the two methods, the multiplier of health expenditures recorded asymmetric developments in terms of their size over the entire analyzed period.

Multiplier of the public expenditures on education

This multiplier shows how much GDP varies from public expenditures to education. We find, based on the two calculation methodologies, that the multiplier records positive or negative values, above or subunits, its size being dispersed in the range -6.26 and 426.0 in variation abolished and in the range -0.26 and 12, 68 in the rate of variation, the lower and upper limits corresponding, in both situations, to 2012 and 2013 respectively**.**

Figure 3. The evolution of the multiplier of the public expenditures for education (calculated on the basis of absolute variation and the variation rate) in Romania for the period 2006-2017



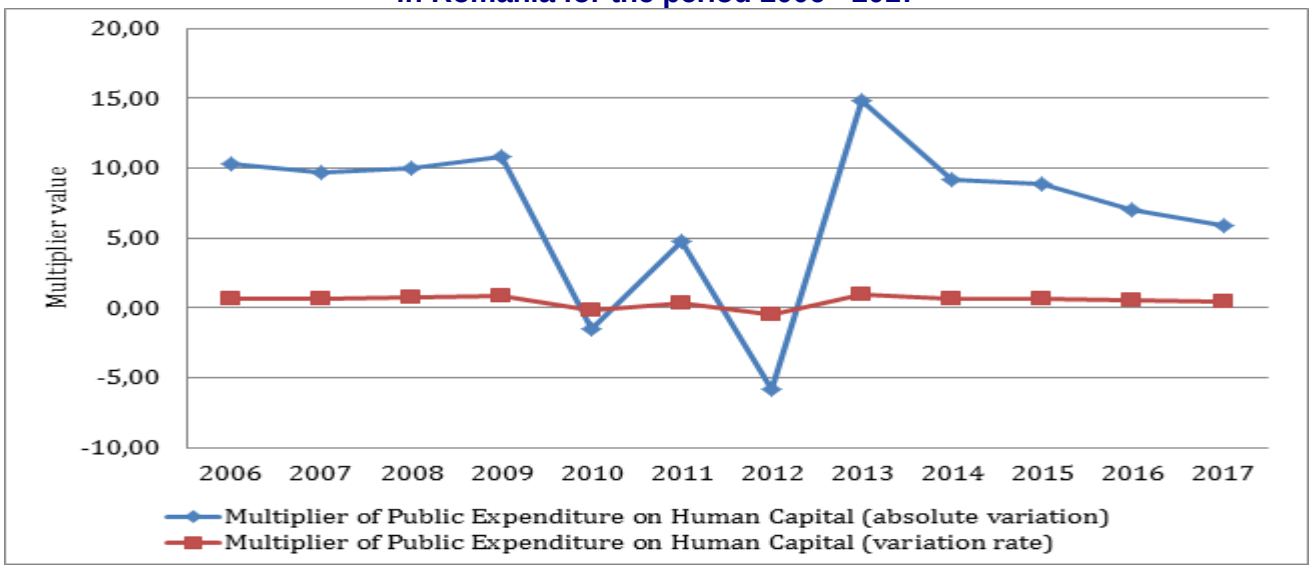
Source: developed by the author on the basis of the data in Annex 1.

Calculated by the two methods, the multiplier for education expenditures records asymmetric developments in terms of their size over the entire analyzed period.

Multiplier of the public expenditures with human capital

This multiplier shows how much the GDP varies with the variation of public expenditures with human capital (resulting from the sum of public expenditures on health and education). We find, based on the two calculation methodologies, that the multiplier records positive or negative values, supra or subunits, its size being dispersed in the range of -6.83 and 14.86 in variation abolished and in the range -0.48 and 1, 01 in the variation rate, the lower and upper limits corresponding, in both situations, to the years 2012 and 2013 respectively.

Figure 4. The evolution of the multiplier of the public expenditures for the human capital (calculated on the basis of the absolute variation and the variation rate) in Romania for the period 2006 - 2017



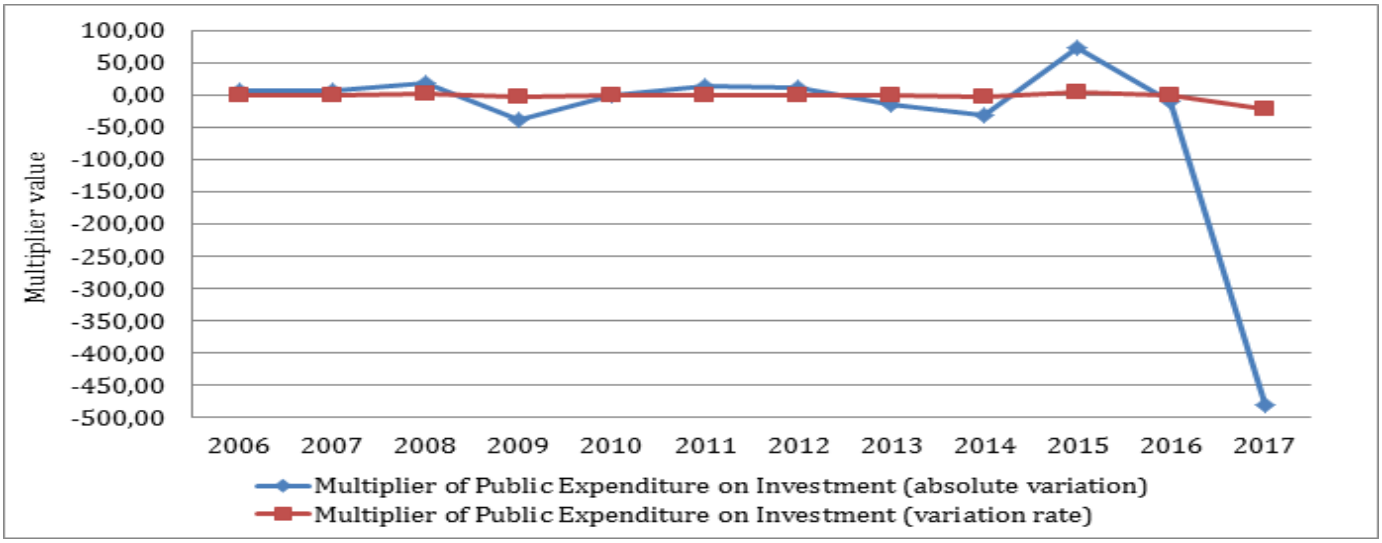
Source: developed by the author on the basis of the data in Annex 1.

Like its components, the cost multiplier for human capital, computed by the two methods, records asymmetric developments, but with a smaller amplitude in terms of their size over the entire analyzed period.

Multiplier of the public expenditures on Investments

This multiplier shows how much GDP varies in the variation in public investment expenditures. We find, based on the two calculation methodologies, that the multiplier records positive or negative values, supra or subunits, its size being dispersed in the range - 479,95 and 74,19 in variation abolished and in the interval - 21,78 and 4,30 in the rate of variation, the lower and upper limits corresponding, in both situations, to 2017 and 2015 respectively.

Figure 5. The evolution of the multiplier of the public expenditures for investments (calculated on the basis of the absolute variation and the variation rate) in Romania for the period 2006 - 2017



Source: developed by the author on the basis of the data in Annex 1.

Calculated by the two methods, the multiplier of investment expenditures records asymmetric developments in terms of their size over the entire analyzed period.

Following the statistics used in the calculation methodology, in correlation with the values recorded by the budgetary multipliers (Annex 1), a number of endogenous causal factors influencing the size of the multiplier were found, common to all the calculated values:

- the multiplier records a negative value when the variance of the input or output is negative;

- the multiplier records a subunit value when the variance of the input variation is higher than the output variation size;

- the multiplier records a unit value (1) when the input variance size is equal to the output variation size;

- the multiplier records an overband value when the input variance size is less than the output variation size.

As regards the two calculation methods used for budgetary multipliers, they are presented by the same variation, expressed in different values, namely in absolute nominal size and in the form of a coefficient.

Impact assessment of calculated budgetary multipliers

The impact of fiscal and budgetary multipliers on GDP is given by their size. To this end, to assess the impact of calculated budgetary multipliers on GDP, we will individually analyze each calculated multiplier.

The multiplier of the total BGC expenditures - from the evolution of this multiplier, we note that it records only one negative value in 2009 in absolute nominal variation as a result of a negative variation of GDP, and in the rest of the years it has positive or sub-unitary values. This size of the BGC total expenditures multiplier reveals a strong impact of the overall budgetary expenditures variation on GDP, confirming to a certain extent the Keynesian economic theory, which argues the high impact of public expenditures on GDP in relation to the alternative to raising tax rates whose mechanism of influence is indirect and relatively diminished. It exposes certain conditions in which the Keynesian economic theory, with regard to the multiplier effect of budget expenditures, is viable, that is to say reduced import orientation and a fixed exchange rate regime, conditions which Romania does not fulfill.

The multiplier of public expenditures for health - from the evolution of this multiplier for the analyzed period we find that it records two negative values, namely in 2009, as a result of a negative variation of GDP, and in 2012, wider, amid a negative variation in expenditures public health, and in the rest of the years it has positive or sub-unitary values. This size of public expenditures multiplier for health, relatively symmetrical with the multiplier of total BGC expenditures, except for 2012 and 2013, reveals a strong impact of the change in public health expenditures on GDP. We appreciate that the manifestation and qualitative impact of this multiplier are not very relevant at a lag of 0, but its effects are stratified over time, and the variation in time of the multiplier may have an inverse relationship proportional to GDP variation (the increase in public health expenditures may means a deterioration in the population's health, impairment of work capacity and, as a consequence, a reduction in production, while reducing public health expenditures would mean a reverse situation).

The multiplier of public expenditures for education - the evolution of this multiplier for the analyzed period shows that it records two negative values, namely in 2010 and 2012, as a result of negative variations of the public expenditures for education, while in the rest of the years it has positive values under or over .This size of the public expenditures multiplier for education, below the one of the multiplier of the total BGC expenditures, with the exception of 2007, 2009 and 2013, reveals a lesser impact of the change in public expenditures on education on GDP. We appreciate, like the multiplier of public health expenditures, that the manifestation and qualitative impact of this multiplier are not very relevant at a lag of 0, but its effects stratify over time. However, unlike the multiplier of public expenditures on health, this causal factor (education expenditures) over time could generate profound multiplier effects on GDP.(increasing public expenditures on education may mean increasing professional training and, as a consequence, increasing labor productivity, hence GDP).

The multiplier of public expenditures for human capital - this multipicator, whose causal factor is represented by public expenditures allocated by the state for human capital (public health expenditures + public expenditures for education), signifies the variation of production (absolute variation, rate of change) expenditures on human capital. From its evolution for the analyzed period we find that it records two

negative values, respectively in 2010 and 2012, as a result of negative variations of these expenditures, and in the rest of the years it recorded positive values under or above the unit. Analyzed in its structure, we see a more pronounced impact of public health expenditures on the size of the multiplier of public expenditures with human capital, with the exception of 2013, where the strong impact of the expenditures multiplier on education is significant, being the only supra-unit value of the multiplier coefficient over the entire period .

We appreciate, as we have done in the case of the structural elements of the public expenditures multiplier for human capital, that its manifestation and qualitative impact are not very relevant at a lag of 0, but the accumulations are stratified over time with these occurring the multiplying effects on GDP.

The multiplier of public expenditures on investment - this multiplier, as opposed to the multiplier of expenditures for human capital, where multiplier effects require more time, is considered the "engine" of the economy, generating ample multiplication effects, with their propagation over long-term , from the causal factor. The evolution of this multiplier for the analyzed period shows that it records six negative values, respectively, in the years 2009, 2010, 2013, 2014, 2016 and 2017. This evolution was due to negative variations in public investment expenditures excluding 2009 when there was a negative change in GDP. In the remainder of the year, the multiplier of public expenditures on investment records positive or sub-unitary values. The size of the public expenditures multiplier for investment reveals a low impact on GDP, amid a low allocation, often lower than in previous years. Their level in 2006 was 24.6 billion lei, and in 2017 it was 34.4 billion lei. An explanation of these insufficient and oscillating allocations is that this category of expenditures has been used as a means / instrument of fiscal consolidation, in the sense of maintaining the conventional budget deficit of the consolidated general budget within the limits of the institutional commitments assumed.

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Annex 1. Multiplier of total expenditures of BGC, public health expenditures, public expenditures for education, public expenditures for human capital and expenditures for public investments in Romania for the period 2006-2017

Indic / timp		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Nominal GDP		290,49	347,00	428,98	538,05	526,35	529,62	562,06	595,37	637,46	668,14	712,66	762,34	858,33
	Absolute variation		56,52	81,98	109,07	-11,70	3,28	32,44	33,30	42,09	30,69	44,52	49,68	95,99
	Variation rate		0,19	0,24	0,25	-0,02	0,01	0,06	0,06	0,07	0,05	0,07	0,07	0,13
Total expenditures BGC / mld. lei		96,10	122,17	159,54	203,24	208,99	211,24	221,10	221,66	225,55	236,84	258,03	266,72	288,58
	Absolute variation		26,07	37,37	43,69	5,76	2,25	9,86	0,56	3,89	11,29	21,19	8,69	21,85
	Variation rate		0,27	0,31	0,27	0,03	0,01	0,05	0,00	0,02	0,05	0,09	0,03	0,08
Public health expenditures / mld. lei		7,51	9,29	15,51	19,70	21,42	21,92	23,23	22,84	25,57	26,74	29,94	30,87	33,80
	Absolute variation		1,78	6,22	4,19	1,72	0,51	1,31	-0,39	2,73	1,16	3,20	0,93	2,93
	Variation rate		0,24	0,67	0,27	0,09	0,02	0,06	-0,02	0,12	0,05	0,12	0,03	0,09
Public education expenditures /mld.lei		10,45	14,18	16,39	23,09	20,30	17,59	23,04	17,72	17,82	19,99	21,82	27,97	41,28
	Absolute variation		3,73	2,22	6,70	-2,79	-2,72	5,45	-5,32	0,10	2,17	1,83	6,15	13,31
	Variation rate		0,36	0,16	0,41	-0,12	-0,13	0,31	-0,23	0,01	0,12	0,09	0,28	0,48
Public expenditures on human capital /mld.lei		17,96	23,47	31,91	42,79	41,72	39,51	46,27	40,56	43,39	46,73	51,76	58,84	75,08
	Absolute variation		5,50	8,44	10,89	-1,08	-2,21	6,76	-5,71	2,83	3,34	5,03	7,09	16,24
	Variation rate		0,31	0,36	0,34	-0,03	-0,05	0,17	-0,12	0,07	0,08	0,11	0,14	0,28
Public expenditures on investment /mld lei		15,60	24,60	35,80	41,80	42,10	37,40	39,90	42,60	39,70	38,70	39,30	34,60	34,40
	Absolute variation		9,00	11,20	6,00	0,30	-4,70	2,50	2,70	-2,90	-1,00	0,60	-4,70	0,20
	Variation rate		0,58	0,46	0,17	0,01	-0,11	0,07	0,07	-0,07	-0,03	0,02	-0,12	0,01

Multipliers / years	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Multiplier of total expenditures of BGC (absolute variation)		2,17	2,19	2,50	-2,03	1,46	3,29	59,42	10,81	2,72	2,10	5,72	4,39
Multiplier of total expenditures of BGC (variation rate)		0,72	0,77	0,93	-0,77	0,58	1,31	23,37	4,03	0,96	0,74	2,07	1,54
Multiplier of public expenditures on health (absolute variation)		31,80	13,17	26,05	-6,82	6,47	24,77	-84,62	15,40	26,36	13,91	53,19	32,77
Multiplier of public expenditures on health (variation rate)		0,82	0,35	0,94	-0,25	0,26	1,03	-3,50	0,59	1,06	0,56	2,23	1,33
Multiplier of public expenditures on education (absolute variation)		15,17	36,96	16,28	4,19	-1,21	5,95	-6,26	426,00	14,11	24,36	8,08	7,21
Multiplier of public expenditures on education (variation rate)		0,55	1,51	0,62	0,18	-0,05	0,20	-0,26	12,68	0,39	0,73	0,25	0,26
Multiplier of public expenditures on human capital (absolute variation)		10,27	9,71	10,02	10,88	-1,48	4,80	-5,83	14,86	9,19	8,85	7,01	5,91
Multiplier of public expenditures on human capital (variation rate)		0,64	0,66	0,75	0,87	-0,12	0,36	-0,48	1,01	0,63	0,62	0,51	0,46
Multiplier of public expenditures on investment (absolute variation)		6,28	7,32	18,18	-39,02	-0,70	12,98	12,34	-14,51	-30,69	74,19	-10,57	-479,95
Multiplier of public expenditures on investment (variation rate)		0,34	0,52	1,52	-3,03	-0,06	0,92	0,88	-1,04	-1,91	4,30	-0,58	-21,78

Source: AMECO Database, calculations by the author

CURRENCY, FINANCIAL INSTITUTIONS, AND NOMINAL ECONOMY

IMPLEMENTATION OF BASEL AGREEMENTS IN THE BANKING SECTOR OF THE REPUBLIC OF MOLDOVA

Stela CIOBU[19]
Victoria IORDACHI[20]

Abstract

Basel III Agreement is a framework of bank regulation which aims to strengthen the stability of the financial system by applying stringent standards designed to improve its ability to absorb shocks from the economic and financial sector and to reduce the risk of contamination from the financial sector to the real economy.

The National Bank of Moldova approved the Basel III Implementation Strategy in the light of the European legislative framework in April 2016. The reform plan will focus on continuing the process of promoting reforms in the banking sector, in particular establishing a transparent shareholder structure attracting new solid investors, adequately assessing the bank's management and identifying transactions with affiliated banks.

The purpose of the article consists in the identification, analysis, monitoring the actions required to be undertaken by the Central Bank and banks in order to implement the Basel III requirements and to harmonize the legislative framework in the banking field with EU directives.

Key words: *Basel III Agreement, banking system, financial crisis, bank regulations, macro prudential supervision.*

JEL classification: *E52, E58*

Introduction

The National Bank of Moldova (NBM) approved the strategy to implement the Basel III through the European legislative framework in April 2016. At that time the document was intended to identify the measures necessary for the implementation of the package of European banking regulation and supervision, and raising the banking sector for the purpose of proper compliance. In the period 2015 - 2017, the National Bank of Moldova has benefited from assistance provided by central banks from Romania and the Netherlands, through a twinning project related to capacity building of NBM regulation and banking supervision in the context of the provisions of Directive 2013/36 / EU and Regulation 575 / 2013 related to the banking sector (the so-called CRD IV package). At that time, the Basel III implementation strategy was relevant to meeting the commitments made under the EU-Moldova Financial Services Association Agreement.

Basel III tries to combine micro- and macro-prudential supervision, while being a risk-management framework at the bank level (taken from Basel I and Basel II) and a systemic risk management framework at the banking system level.

The Basel III brings changes to capital both in quantitative and qualitative terms. In simple terms, more qualitative capital will be requested (the quality reflects the availability of capital to absorb risks). Banks will have to significantly extend their planning horizon per components until the moment of their complete implementation in 2019. As a result of new recommendations of Basel III relating to optimization of bank capital, banks will face a more efficient environment and an increase of reduced profitability, while the banks stability will be ensured through the coverage of all risks related to bank activity.

The scope of research is identification, analysis, monitoring of actions necessary to be taken by the Central Monetary Authority and banks to implement the Basel III requirements and harmonize the legislative framework in the banking sector to the requirements of the EU directives. The investigation was performed in base of the analysis of the Moldovan banking sector.

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Methodology of research. For the elaboration of the article general scientific knowledge of economic principles was applied, as well as concrete historical approaches that would allow the consideration of development phenomena and processes. The techniques used were: induction, deduction, comparison methods, synthesis and analysis.

Strategies of banking supervision that will be implemented by the Central Bank

The modernization of the banking sector in the Republic of Moldova through the implementation of the Basel III requirements that already was applied by many countries, including the EU states through the CRD IV and CRD package, will be performed through the efficient use of resources, with the support of donors and external partners, optimal solutions for the development of internal risk management systems in banks, as well as by filing relevant information about this process for the banks involved.

In accordance with the banking legislation, the NBM has created the banking supervision and regulation mechanism by establishing a series of specific requirements stipulated in national normative acts, which banks are obliged to observe. These requirements are constantly improved to ensure compliance with the provisions of the legislation, with generally accepted international principles and best practices, in particular with the recommendations of the Basel Committee on Banking Supervision and European Union Directives.

Based on generally accepted standards, the NBM promotes an active policy in the field of regulation and supervision of banks' activity through:

- Establishing banks' authorization criteria, capital requirements, exigencies with owners and their shares, and bank managers;
- Establishing the requirements to ensure the high quality and functionality of banks' internal control systems, including procedures for preventing and combating money laundering;
- Establishing and supervising compliance with prudential requirements to ensure banks' exposure to risks;
- Undertaking actions related to the application of corrective measures, sanctions, the introduction of special supervision or, as the case may be, special administration for solving problems with banks with increased vulnerabilities.

The reform plan, as well as the changes in the regulation in the field of banking supervision in the context of the implementation of the Association Agreement between the Republic of Moldova and the European Union, the National Bank of Moldova will focus its efforts to implement the following priority banking supervision strategies:

- transparency of shareholders;
- implementing BASEL III requirements by focusing on the bank's internal governance and risk management;
- credit risk;
- exposures to affiliated persons;
- the risk associated with information and communication technologies (ICT);
- combating money laundering and terrorist financing.

Transparency of shareholders

Transparency of shareholders is one of the basic elements for establishing robust corporate governance in the banking sector and attracting investors that meet the high quality requirements. During 2017, in the framework of performing the transparency of shareholder attributions, the NBM imposed sanctions in the form of fine to holders of substantial quotas in the share capital of two licensed banks.

In 2018, the National Bank continued the previously initiated transparency exercise and worked with state-owned institutions and overseas supervisory authorities to complete the control of all final owners of Moldovan banks. In particular, the NBM will continue its enhanced effort to ensure that the largest banks' shares are held by investors meeting the criteria of quality and transparency.

Implementing BASEL III requirements by focusing on the bank's internal governance and risk management.

Checking the compliance of banks with the new prudential standards (Pillar I). Another priority is the verification of both the on-the-spot checks and the ex-officio information available on the compliance of banks with the legal provisions in the context of the implementation of Basel III standards. Thus, the reports submitted by banks according to the COREP / FINREP reporting framework, as well as the compliance of the internal regulations elaborated in the context of the new legislative framework, will be checked.

Supervision and evaluation process (Pillar II). The National Bank of Moldova will ensure the verification of the management framework for the activity, strategies, processes and mechanisms implemented by each bank in order to comply with the provisions of the new law and the normative acts issued in its application and will carry out its own assessment of the risks to which the banks are exposed.

At the same time, the NBM will require banks to have a rigorous management framework including a clear organizational structure with well-defined, transparent and coherent responsibility lines, effective processes for identifying, managing, monitoring and reporting the risks to which they are exposed (ICAAP), stress-tests, adequate internal control mechanisms, including strict administrative and accounting procedures. Increased attention will be given to management decisions of banks, to the existence of specialized committees of banks' councils, to the collective and individual knowledge of the knowledge and skills of members of management bodies, key personnel, etc. At the first stage, the NBM asked all banks to carry out a self-assessment of corporate governance and to take all necessary measures to comply with the legal framework.

Credit risk

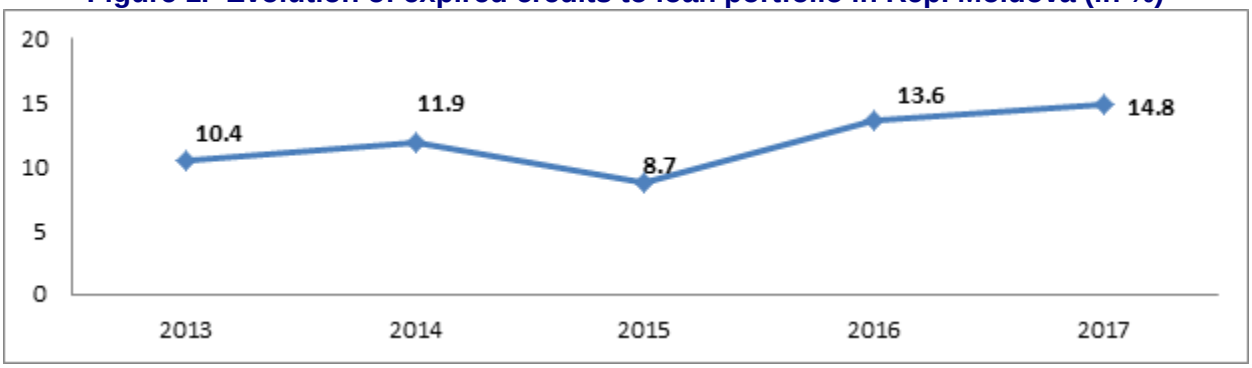
In the structure of assets the largest share belongs to the loan portfolio, which as of 31.12.2017 constituted 42.3%. The year 2017 was characterized by problems related to the high share of non-performing loans in total loans (18.5%).

Thus, as in the previous year, in 2018 credit risk remains the most significant and important area of supervisory priorities. In particular, increased attention will be given to the timely creation of asset and conditional asset write-downs, lowering the level of bad loans, management and valuation practices, and existing lending renegotiation policies.

Expired credits to loan portfolio registered an increasing trend during 2013-2017, from 10,4% to 14,8% (see fig. 1) and this is due to the fact that the amount of expired loans increased at a higher rate than the loan portfolio increased.

The banks that recorded the highest level in 2017 of this indicator are: B.C. "EXIMBANK - Gruppo Veneto Banca" JSC - 43%, B.C. "VICTORIABANK" JSC - 26%, B.C. "ENERGBANK" JSC - 12.5%. The banks that recorded the lowest level of this indicator are: B.C. "FinComBank" JSC - 1.9%, B.C. "MOBIASBANCA Groupe Societe Generale" JSC - 3.0%, B.C. "COMERTBANK" JSC - 3.7%.

Figure 1. Evolution of expired credits to loan portfolio in Rep. Moldova (in %)

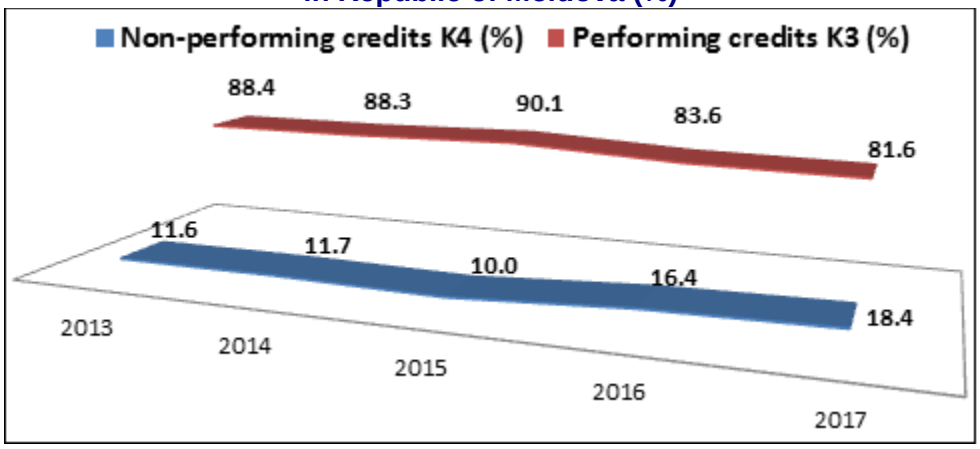


Source: Elaborated by authors in base of data retrieved from the official site of the NBM, www.bnm.org

We note that the quality of the credit portfolio of the banking sector worsens per year, in 2013 the ratio of bad loans to total portfolio was 11.6% and in 2017 the level of this indicator increased to 18.4% (see fig. 2). This increase is due to the fact that the following banks worsened their credit portfolio considerably: BC "Moldindconbank" JSC this indicator rose from 16% in 2016 to 29.4% in

2017, BC. "EXIMBANK - Gruppo Veneto Banca" JSC level of this indicator rose from 28.9% in 2016 to 34.05% and BC. "COMERTBANK" JSC increased this indicator from 16.1% in 2016 to 20.26% in 2017. The banks with the worst non-reforming loan portfolio are: BC "EXIMBANK - Gruppo Veneto Banca" JSC - 34%, BC "VICTORIABANK" JSC - 33% and BC "Moldindconbank" JSC - 29.4%. The banks with the highest credit portfolio are: BC "FinComBank" JSC - 4.02%, BC "MOBIASBANCA - Groupe Societe Generale" JSC - 7.4% and BC "EuroCreditBank" JSC - 8.82%.

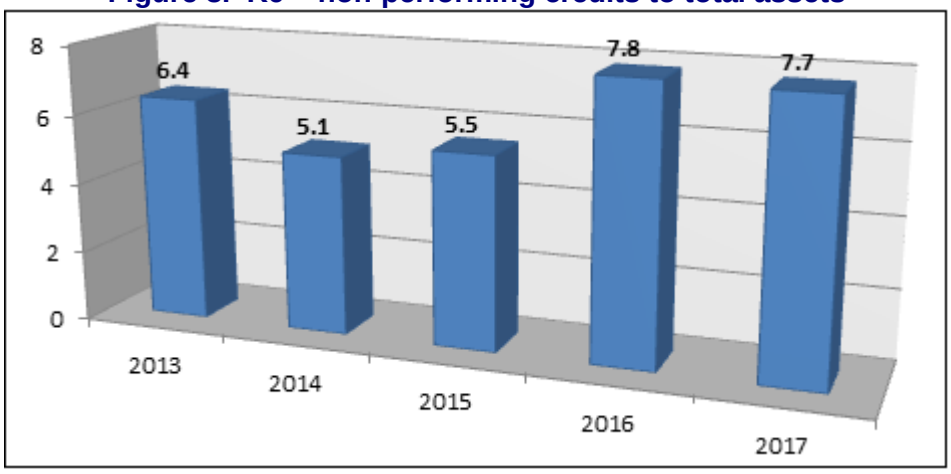
Figure 2. Evolution of the quality of credit portfolio in the banking sector in Republic of Moldova (%)



Source: Elaborated by authors in base of data retrieved from the official site of the NBM, www.bnm.org

An increasing trend of non-performing credits to total assets indicator is also observed, so that in 2013 this indicator reached 6.4 and in 2017 rose to 7.7 (see fig. 3). This is due to the fact that non-performing loans have increased to a greater extent than the bank's assets.

Figure 3. K6 = non-performing credits to total assets



Sourse: Elaborated by authors in base of data retreived from the official site of the NBM, www.bnm.org

The NBM has considerably tightened bank supervision and reporting standards, including the ones against compromised loans. However, a number of systemic problems persist, among them: issues of transparency of shareholders and effective beneficiaries, corporate governance and inefficient management, weak internal control procedures and audits. Although the NBM stopped creating new, dubious and compromised loans, the solution of the existing ones is difficult. The NBM will also assess the credit risk management framework by carefully analyzing banks' procedures, policies, strategies and practices in the context of identifying, quantifying, monitoring and diminishing over time. At the same time, the NBM will examine ex officio each year the credit portfolio of each bank on the basis of the Credit Risk Register for the purpose of supervising and identifying imprudent practices.

It will also be continuously realized the identification of groups of people acting concerted to report real "large" exposures and complying with the prudential limits set.

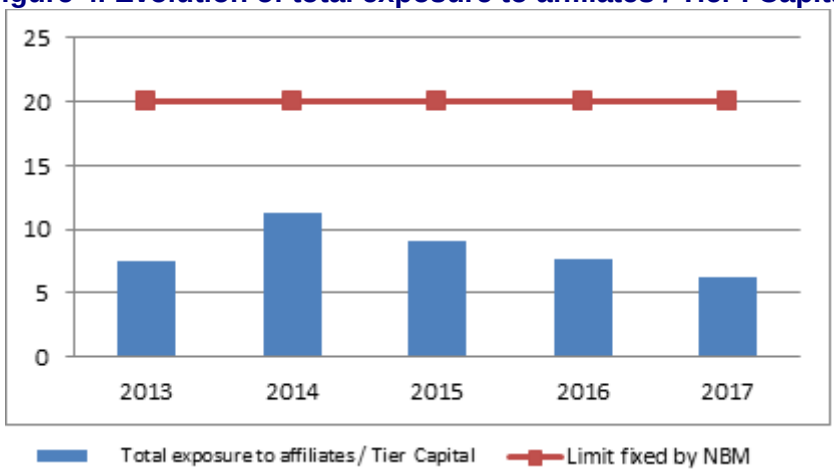
Exposures to Affiliates

Throughout 2017, the National Bank of Moldova stepped up its efforts to identify affiliated banks. In this context, implementing changes to the Bank's Transaction Regulation with its affiliated persons

has contributed to banks' efforts to identify their affiliates as well as their transactions. At the same time, NBM was given the right to presume the affiliated banks. Additionally, the Credit Risk Register has been adjusted, which has made it possible to collect the presumption characteristics in a single database within the field controls.

During 2017, the analysis of exposures to affiliates in the three largest banks with the assistance of an international audit firm was carried out, while the analysis of exposures in non-systemic banks is carried out by NBM inspectors as part of the complex land.

Figure 4. Evolution of total exposure to affiliates / Tier I Capital



Source: Elaborated by authors in base of data retrieved from the official site of the NBM, www.bnm.org

Over the years banks have respected the limit fixed by the NBM as regarding the total exposure to affiliated persons to Tier I Capital (see fig. 4), so the level of this indicator is on a declining trend from 11.28% in 2014 to 6.28% in 2017. Banks with the highest values are BC. "ENERGBANK" JSC - 13.9%, BC "Moldindconbank" JSC - 9.01% and BC "MOLDOVA - AGROINDBANK" JSC - 8.98%.

Throughout 2018, the National Bank of Moldova continued the process of identifying affiliated persons and examining the bank's transactions with them (including some features indicating a possible affiliation), which will facilitate the pursuit of compliance by banks with legal provisions related to those transactions, including prudential limits on exposures to them. The NBM will also develop a guidance on the management of related party risks to help banks strengthen their internal processes. In addition, the NBM will adopt the internal methodology and procedures for situations in which the bank's exposure to related parties is presumed. On the basis of these measures and the results of the related parties' assessment, banks will be required to submit action plans with concrete deadlines to ensure full compliance with the decisions of the NBM Executive Board to remedy the situation of affiliated parties .

The risk associated with Information and Communication Technologies (ICT)

The risk associated with information and communication technologies (ICT), especially cyber-risk, remains one of the main priorities of supervision over 2018, as its materialization may lead to disruption of banking activity, compromising the confidentiality and integrity of information. These risks can generate significant costs and may negatively impact the bank's image.
In connection with their continuous development, in order to ensure information security, protect customers and banks from possible fraud, prevent cyber attacks, the National Bank of Moldova requested banks in 2017 to conduct a complex external audit in the field of ICT and to present its results to on March 31, 2018. In order to ensure that the exercise proceeds uniformly for all banks, the National Bank of Moldova has developed a set of minimum requirements on the areas to be assessed and the main processes on which it is going to expose its opinion.
The complex external auditing in the ICT field will allow to assess the adequacy of the information systems and the continuity of activity and will determine whether the banks have information security management (SMS) systems in compliance with legal and regulatory acts (including NBM recommendations) in the field of information and security technologies information in force. In the future, the NBM will continue to take measures to prevent and limit the risk associated with Information and Communication Technologies (ICT).

Combating money laundering and terrorist financing

During 2018, the NBM focused on the implementation of the requirements of the new Law on the prevention and combating of money laundering and terrorist financing, approved on 22.12.2017, and ensured the modification of the secondary regulatory framework, in particular of the regulations and recommendations related to the field. At the same time, the NBM carried out its actions according to the Plan of Measures approved by the Government Decision in 2017 to reduce the identified risks in the field of combating money laundering and terrorism financing. NBM also verified whether banks and other entities monitored comply with relevant legislation, apply customer knowledge policies and increased precautionary measures, monitor transactions, etc. and has timely informed the authority responsible for preventing and combating money laundering and terrorist financing of identified risks.

At the same time, the National Bank will undertake surveillance measures to monitor banks and entities monitored to strengthen their internal control system in order to ensure their ability to adequately identify and assess the risks of money laundering and terrorist financing. In this context, appropriate training will be organized and materials and information will be provided to help identify money laundering typologies and terrorist financing. In addition, the NBM will continue its efforts to improve remote surveillance by implementing an IT tool and will intensify field inspections in order to establish the compliance of banks and entities monitored with the rules on preventing and combating money laundering and terrorist financing.

Similarly, ***an important aspect for the implementation of Basel III is the modernization of the banking sector according to the provisions of the EU-Moldova Association Agreement.*** So, a new stage in the evolution of Moldova-EU relations was the signing of the Moldova-EU Association Agreement, which is an integral part of the Eastern Partnership policies. Thus, under the precedent of the Association Agreement, the Republic of Moldova, with the support of the EU, will adopt rules and practices to ensure the stability and integrity of the financial system in general and of financial services, in particular through the appropriate cooperation between the actors of the financial system, regulation and supervision. Achieving these goals is necessary to build a functioning market economy and stimulate trade between the Republic of Moldova and the EU.

The effort of the Republic of Moldova to harmonize its legislation with EU legislative acts in the field of financial services will range from one year to five years. During this period, the Republic of Moldova will have to assimilate the European standards set out in 40 directives and recommendations, which concern: prudential policies on acquisitions and increases in financial sector holdings; the supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate; initiating and pursuing the activity of credit institutions; access to activity, conduct and prudential supervision of the activity of electronic money institutions; Deposit Guarantee Schemes; the annual accounts and the consolidated accounts of banks and other financial institutions; reorganization and liquidation of credit institutions.

Moreover, the Republic of Moldova needs to strengthen its efforts to implement Basel III provisions in a timely manner. In December 2017, the Basel Committee published a proposed package of reforms to regulate and implement Basel IV. The implementation of the Basel IV framework is already a remarkable challenge for the European banking sector, as the methodologies for determining the capital requirements are to be reviewed. By doing so, capital calculations for all types of risks will be fundamentally altered. Basel IV includes updates to how banks are calculating their capital requirements so that the results become more comparable globally among banks.

Recommendations

It is necessary to continue the process of promoting reforms in the banking sector, in particular establishing a transparent shareholder structure in order to attract new solid investors, adequately assessing the bank's management and identifying transactions with affiliated banks. At the same time, the implementation of the Basel III standards will increase the safety and soundness of the banking sector, as well as the strengthening of its resistance to shocks and crises.

To implement Basel III in the Republic of Moldova, the following recommendations are proposed:

- Establishing a sound basis for prudential regulation, including capital adequacy, financial leverage and liquidity, development of supervisory processes, market discipline, and risk management principles and maintenance of financial stability.
- Employing qualified staff or training existing staff not only within the NBM but also at the level of each bank to ensure that the new requirements are implemented in an efficient and qualitative manner.
- Providing banks with detailed plans to implement the new requirements and identify the necessary resources for this process and report on the internal capital adequacy assessment process, assessing the adequacy of internal liquidity.
- In order to ensure a harmonious implementation at the level of the banking system, it is necessary to create transient provisions specific to each regulated area, which will allow for the timely distribution of regulatory pressure on banks. Transitional arrangements will be discussed and negotiated with banks both at the start of the transposition process and before the implementation phase.
- Banks should assess how the changes resulting from the application of the new requirements correspond to the risk profile and the possibility for banks to discuss any issues that arise during the implementation of the new requirements with the NBM as supervisor to ensure a fair and consistent interpretation of the new rules.
- The NBM must continuously ensure bilateral dialogue with banks in the implementation of Basel III requirements and aim to communicate the expectations of the NBM on a regular and effective basis.
- Banks should review profitability indicators in the context of a higher regulatory environment. Also, some business segments will be evaluated on "accessibility" criteria, given the funding and capital deficit in the future. Redesigning products and services to ensure that they continue to meet customer needs, while optimizing capital and bank liquidity.
- Banks must strive to improve their ability to pass on risks. One way is the closer cooperation between the bank and the creative institution of the product so that both teams are engaged in increasing the volume of credits that can be securitized, sold or syndicated. Another way of transferring risk is to expand the bank's partnerships on trade union and securitization issues, both geographically and by industry.

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THE GROWTH OF THE BANK INTEREST

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Abstract:

The paper makes a theoretical update of the necessary and current phenomenon of bank interest rates growth by the states of the world and demonstrates the necessity of this phenomenon.

Although the economy of world countries has been rising for the past 4-5 years, for some of the poorest countries, the cost of debt has reached the highest level in the last decade. Government treasuries have experienced the impact of falling raw materials exports, and dollar-denominated debt has risen as the US currency has appreciated.

At the European Union level, bad loans reached more than 1 trillion (one thousand billion) euros and that is why the situation needs to be remedied more quickly to solve the problem of banks and restore their profitability. Unfortunately, these non-performing loans are concentrated only in a few countries, making the rebalancing process more difficult.

Keywords: Bank of International Settlements, Bank Interest, Federal Reserve of the United States

JEL classification: *E43, E44, E58*

Introduction. Theoretical and practical aspects

By setting benchmark interest rates on the market, central banks influence the price of money in an economy. Major central bank decisions, such as the Federal Reserve or the ECB, cover much wider areas, which may extend to the world economy. The way of working is known: when savings are thought to slow down, stagnate or go into recession, central banks reduce interest rates to stimulate lending and economic growth, and when overheating occurs, interest is increased.

"All major economic schools - classical, neo-classical, Keynesian, Monetarist, post-Keynesian or Austrian - claim low interest rates boost growth and vice versa," writes Professors Richard Werner and Kang- Soek Lee of Southampton University in the UK. The two authors are empirically analyzing the relationship between interest rates and nominal GDP growth in the US, UK, Germany and Japan. The data used to estimate the dynamic model covers a 57-year period for the United States, Great Britain and Japan and 47 years for Germany. "If decision-makers really want to set a level of interest consistent with the economic recovery, then it needs to grow. The conventional monetary policy applied by central banks over the last half century is fundamentally wrong, "said Richard Werner and Kang-Soek Lee.

In addition to being the world leader, the four economies were also chosen because of the different "forms of capitalism" that characterize them, as the authors suggest. In the case of the United States and Great Britain, it is about the "stock market capitalism," while Japan and Germany are included in the so-called "bank capitalism / capitalism of the welfare state". The conclusion of the study, which analyzes the correlation and statistical causality between interest rates and economic growth, is that "there is no empirical evidence to support the negative correlation between interest and growth and the statistical causal relationship between interest rates and growth." Moreover, "we have found that interest rates follow nominal GDP growth and are positively correlated with this," Werner and Lee said, "the results imply that traditional monetary policy is wrong."

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Description of the Problem

Bank of England

On November 2, 2017, the Bank of England (BoE) announced the first increase in benchmark interest over the past ten years, in line with analysts' estimates, and assured that any increases over the next three years will be limited and gradual. The interest rate was increased to 0.50%, down from the record low of 0.25% set in July 2007. Most analysts expected this credit cost increase by 25 basis points. Following the BoE decision, about four million Britons will pay higher mortgage rates, but those with bank deposits will get slightly higher earnings. After announcing the decision, the pound depreciated 1% against the dollar, trading at 1.3096 American dollar. The Bank of England has maintained unchanged estimates of GDP and inflation. The institution expects UK GDP to grow 1.7% over the next three years, well below the 2.9% average before the crisis. In the next three years, 2018-2020, the inflation rate would be 2.2%, slightly above the BoE target of 2%. In September 2017, the inflation rate climbed to 3%, the highest level over the past five years, due to depreciation of the pound sterling.

Bank of Austria

The increase in yields on government securities is a good signal for the banking sector since early 2017, said Ewald Nowotny, governor of the Austrian National Bank and member of the Governing Council of the European Central Bank (ECB).

He gave as examples the bonds issued by Germany and Austria, whose yields (effective interest) increased over the past months as a result of the ECB's policies, as well as the election of Donald Trump as President of America. He has made it clear that greater economic growth will lead to lower unemployment, which will then lead to higher bank interest, which will be good for the European banking system. The Governor of the Bank of Austria says that now the problem of the European banking system is solving the situation of non-performing loans, which have just begun to appear on the surface. From 2014, the ECB is trying to prevent a deflation in Europe by pumping hundreds of billions of euros into the financial system in an attempt to rebound inflation and economic growth.

Then, at the beginning of September 2018, during the EU presidency, Austria asked Finance Ministers and central bank governors in the EU block to speculate on a bank interest rate rise, the Austrian government being convinced that the bank interest rate hike implications for the financial stability of EU countries. The discussions of finance ministers and central bank governors in the bloc were helped by a document produced by the CEPS Reflection Center, where Daniel Gros argues that there is little reason to worry about the impact of monetary policy normalization on the real economy. The document recognizes that there are some risks associated with a sharp rise in interest rates, as heavily indebted borrowers may not be able to repay their debts.

Central Bank of the Czech Republic

At the beginning of November 2017, the Czech Republic increased its interest rate for the second time this year, after it became the first country in the European Union to tighten monetary policy in August: the interest rate by 25 basis points from 0 , 25% to 0.50%. In the second quarter of 2017, the Czech economy recorded an annual growth of 4.7%, wages increased, and the unemployment rate is at the lowest level in the EU, reinforcing inflationary pressures. Economic indicators show that the trend continues in 2018.

Immediately after announcing the decision, the euro was traded at 25.57 crowns. In April 2017, the Central Bank of the Czech Republic eliminated the minimum threshold of 27 crowns for one euro, set in November 2013, allowing free floating of the national currency. Since then, the Czech currency has depreciated by 5.7% against the euro. In September 2017, the inflation rate rose to 2.7%, well above the 2% target of the Czech Central Bank.

Bank of Germany

"It is time for financial institutions to prepare for a rising environment of the bank interest rate. Many risk managers are focusing on credit and liquidity risks, but they also have to take into

account interest risks, "said Andreas Dombret, a member of the executive board of the Bundesbank.

Dombret explained that the German central bank is "very seriously" raising interest rates and actively "working" with German banks to ensure that they will not be affected in any way by the change in monetary policy. "Any sharp rise in interest would certainly be a challenge for any bank," said Dombret.

Members of the German central bank criticize the low-interest rate environment in the Eurozone, arguing that it is affecting banks' balance sheets. At the beginning of April 2017, Bundesbank President Jens Weidmann called on the European Central Bank to start tightening its monetary policy.

US Federal Reserve

Federal Reserve - on short say Fed, the central bank of the US - is close to fulfilling its mission of reducing unemployment and price stability, and seems to be heading for the monetary policy model that officials predicted, according to Fed Vice President Stanley Fischer. Here's what he said on Feb. 16, 2017, in an interview with Bloomberg: "I do not want to give exact figures, but the evolution of the economy is in line with what we wanted. We are heading towards an inflation rate of close to 2% and the labor market will continue to strengthen. If these two things happen, we will be in the direction we expect, more or less. The wage growth process has begun. We expect a gradual rise in interest rates and it may take several years to reach the level of previous years. We expect the economy to grow at a reasonable pace ".

The Fed will probably soon have to increase its monetary policy rate, Janet Yellen, chairman of the institution, said on Feb. 14, 2017, warning about the uncertainties about the economic policy of the Trump administration. The delay in raising the interest rate could leave the Fed's Monetary Policy Committee (FOMC) in a precarious position, eventually forced to raise rates quickly, which could cause a recession, Fed said: "It would not be wise to wait too long until we give up expansionary monetary policy, "Janet Yellen said in the US Senate, citing the Fed's expectations of tightening the labor market and rising inflation to 2 percent.

At the February 1, 2017 meeting, the Fed maintained its monetary policy rate at between 0.50% and 0.75%, amid a slowing economy in the fourth quarter of 2016, and a slight rise in the unemployment rate. The FOMC said the economic outlook remains positive and reiterated that it is anticipating a gradual rise in the interest rate, analysts expecting a decision to do so in the first half of 2017.

Bank of International Settlements

Central bank concerns about the effects of too rapid interest rates should not underestimate the risks of delayed action, the Bank of International Settlements (BIS), surnamed by the central bank of the central banks, warned: "Too much delay in normalization is also risky. Why? Because there is more risk and it is difficult to know where these risks are shedding. "

The BIS, which constantly warns against the risks of politics too lax, thinks it has gone too far with caution. "Markets lie too much on the idea that interest rates and inflation will remain at low levels for longer and that's why it is an environment conducive to taking even more risk," explained the former chief of the BIS that he was particularly concerned about increasing leverage in the world economy.

Conclusions

Raising financing costs by raising interest rates is influenced by the double pressure of commodity price declines and a stronger dollar in 2017 following the protectionist measures announced by US President Donald Trump. Thus, the cost of debt will increase in the case of poor countries, which have contracted high value loans in recent years from Western countries where interest rates have been low.

Although the world economy has been on the rise for the past 4-5 years for some of the poorest countries in the world, the cost of debt has reached the highest level in the last decade. Government treasuries have experienced the impact of falling raw materials exports, and dollar-denominated debt has risen as the US currency has appreciated.

After November 2016, when the Americans wanted to have Donald Trump president, the dollar appreciated by more than 6 percent against a basket of major currencies, investors expecting President Trump's ambitious spending plans to boost economic growth, and that The Fed will decide more interest rate hikes in 2017.

Specialists expect the IMF and other international financial institutions to provide new loans to save "foolish banks" and thus significantly increase lending to countries hit by the crisis. Government payments to external debt in 122 developing countries for which World Bank data are available increased from 6.7% of government revenue in 2014 to 9.7% in 2016, the highest level since 2007.

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AN EU DILEMMA - EURO BETWEEN A MEANS AND AN AIM IN ITSELF

Lucian C. IONESCU[23]

Abstract

This short paper is dealing with an EU dilemma ever since the enactment of the EU Treatise of Maastricht: is the single currency (euro) a means or an aim per se? Despite almost two decades since euro was launched/issued by the ECB, the dramatic events evolved during that period – especially the burst and consequences of the Great Financial Recession – have made the mentioned dilemma be still actual. A SWOT analysis will raise both pros and cons regarding the role of euro (research in progress). After the 'experiment' of unconventional monetary policies, it is high time for a radical improvement of the European monetary union, within an ample debate concerning the international monetary and financial – primarily banking – system.

JEL classification: E 58; F 15; F 33; F 36

As long as the forms of money had an intrinsic worth (traditional examples – gold & silver), their economic role reflected the exchange value of the material, they were made of, which gave money a kind of 'objectivity'. Once paper money was issued and socially accepted, the de-materialization of money has swiftly unfolded. That historic innovation has been strikingly ambivalent: on the one hand, it has eased the exchange of goods and services, equally reducing the cost of printing money, and, on the other hand, it has opened a Pandora's box by offering almost freely a quasi-monopoly to the banking institutions on money creation and circulation, which provoked a rapid proliferation of credit money based on various types of debt. Correlating different sources of information, one could appreciate 'global debt' (that is world-wide) as representing the huge sum of about 500 trillion USD (mid-2018). Lakshman Achuthan, co-founder of ECRI (*Economic Cycle Research Institute* – based in New York), has considered that the total debt of the US, Eurozone, Japan and China increased over ten times as much as their combined GDP growth in the last period (2017/18).

Nowadays money has not become only highly dematerialized (except the marginal role of monetary gold), but the currencies are more and more *virtual,* offering an almost ideal environment for monetary and financial speculative transactions. This is how the so-called crypto-currencies have appeared and which are extremely difficult to monitor and supervise. However a central bank digital currency is still an option to consider.

This rather strange conjuncture represents both a very dangerous challenge for the world economy and a special opportunity to rethink and restructure the international monetary system.

1.As regards the serious perils confronting the world economy, I have repeatedly emphasized the *deepening scission between the nominal and real facets of the economic activity and social life* (starting with early 1990s). It is well known that this grave anomaly was explosively amplified due to the neoliberal offensive, launched at the beginning of the 1980s and perversely expressing the interests of oligopolistic and monopolistic financial capital. On this background, the de-regulation of the international financial system took aberrant forms. The 1990s represented the climax of the so-called financial *deregulation and forced privatization.* The most conspicuous case consisted in the Gramm-Leach-Bliley Act enacted in USA in 1999, by which the last provisions of the Banking Act of 1933 were repealed. Taking into consideration the hard lessons of the Great Depression, The Glass-Steagall legislation had enforced a separation between commercial and investment banking, preventing investment banks and securities firms from taking deposits and commercial Federal Reserve member banks from dealing in non-governmental securities for customers or investing in non-investment grade sectors for themselves. At the same time, commercial banking institutions were not allowed to underwrite and distribute non-government securities or to affiliate with securities firms/companies. Repealing the last valid provisions of the Banking Act of 1933 was the final blow given to the barriers raised in the 1930s against unlimited financial speculative

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operations. Almost simultaneously with this new financial environment, there were conceived the 'killing' instruments necessary for huge speculative investment profits – the famous *financial derivatives.* Thus the road to the Great Financial Recession (GFR) had been fully prepared.

It is only natural to analyze the *euro* evolution in the context of the world developments we have just reviewed. The international role of the EU currency has been dwindling under the shocks of GFR consequences and more recently due to the Brexit process and the increasing tensions in the US – EU trade relations. If a historical analysis of the *euro* would be done, one should remember that the birth of the single currency had to follow a rather forced route: the monetary/nominal indicators were awarded the leading role vis-à-vis the real economy, which was a detour from the normal evolution of mankind's economic activity. From the beginning, the EU single currency was conceived mainly in political 'laboratories', dominated by the developed western European states. Despite diplomatic declarations, in practice, *euro* has been considered more an end in itself than a means to facilitate an organic integration by reducing the discrepancies among member countries.

This bias was obvious even from the Maastricht Treaty (enacted in 1993) which laid the foundation for the European monetary union (EMU): the so-called 'Maastricht criteria' for adopting *euro* were exclusively nominal or quasi-nominal – inflation rate, interest rate, Government budget deficit, public debt, exchange rate. Even nowadays there is no direct indicator of the real economy envisaged as a criterion for entering the Eurozone (only collaterally they are taken into consideration in some periodical evaluations). However, the level of economic development should be of utmost importance, especially GDP per capita, degree of productivity and competitiveness. Otherwise a single currency could deepen and not alleviate the development gaps, by stimulating capital & natural resources flows, qualified labour and brain drains from emergent economies to the most advanced EU member states. Referring to the case of Romania, our country's GDP per capita is presently about 63% (2017) of the EU average and productivity level is likewise. Moreover, according to the European Commission's *Final Report – Economic challenges of lagging regions* (2017), `the two economies with the lowest level of *total factor productivity* continue to be Bulgaria and Romania.' Supposing we could accomplish the Maastricht criteria (which happened for a couple of semesters), adopting *euro* would not be clearly beneficial *unless real economy indicators (mainly GDP/capita and labour productivity) will be as near as possible to the EU averages.*

Nevertheless, *euro* could still be useful if its role would be rather similar to what was initially intended for the Special Drawing Rights (SDR issued and managed by IMF). In this scenario, *euro* would circulate on the basis of the 'communicating vessels' principle between the members of Eurozone and the EU members which have not yet replaced their national currencies. In this way, *euro* would become more flexible[24] and adaptable to various economic and financial conditions. In fact, a higher degree of integration should mean homogeneity, *not uniformity.* Adopting the single currency must not be a political propaganda objective, but the normal outcome of a complex process of restructuring national economic and financial systems, based on freely accepted principles of European integration.

2. Nowadays one may remark a historical conjuncture when the extension of euro-area coincides with an ascending popular movement for a radical change of the principles, functioning and practice of the monetary system: from 'private' money (that is based on credit at the discretion of banks) to public or sovereign money – controlled by state under *an effective democratic control*.

For this relatively recent tendency, a significant example is represented by the *Positive Money* movement launched, in UK, in 2010, in the aftermath of GFR. Realizing that reforming the monetary system requires a concerted international strategy, the *Positive Money* established, in 2013, the International Movement for Monetary Reform and, in 2016, launched a 'QE (quantitative easing) for People' campaign in the Eurozone. In their vision, the monetary and banking system has not been working for the benefit of most people, causing houses price bubbles, ever higher levels of debt, worsening inequality and continuing to lay foundation for financial crises. It is too obvious that huge transnational financial institutions (mainly banks) concentrate most of the

[24] *In a different version, this is also a desideratum expressed by Joseph Stiglitz in The Euro: How Common Currency Threatens the Future of Europe, W.W.Norton Company, 2016 (especially Part IV).*

economic power, ultimately generating a dangerous democratic deficit in the way central banks take decisions.

Moreover, in USA, there has been established the *Alliance for Just Money* (in July 2018), which grew organically out of the American Monetary Institute. The Alliance's mission is to research, educate and organize society for a real monetary reform. Therefore the Alliance is promoting the development, implementation and protection of a transparent public, sovereign money system. As it is underlined in the Mission statement, to achieve an effective money reform it is necessary that: (i) Congress exercise its Constitutional power to monitor the creation of money, debt-free, and to establish a transparent public authority to determine the amount of new money the Treasury will disperse; (ii) end the exorbitant privilege of commercial banks to create and issue what is generally considered as money and which is presently based on credit and debt; (iii) transfer ownership of the Federal Reserve Banks to the Treasury, in a most democratic way.

Such initiatives are spreading, especially in Europe and North America, representing a form of social fight to eliminate or at least drastically reduce financial speculation, so that investment could be stimulated in productive sectors of the real economy which boost incomes necessary to serve society's urgent needs (economic, social, ecological). These movements are expressing an intense discontent of a large proportion of many countries' citizens concerning the big banks' propensity to manipulate the monetary and financial systems for increasing their own enormous profits. Ever more people are becoming aware of the harmful behaviour of banking and other financial institutions, contributing massively to the exacerbation of the boom – bust cycles, while avoiding paying for their own mistakes or even malevolent scenarios and tactics. In fact, financial institutions (banking and non-banking) were by far the main beneficiary of the famous *unconventional (non-standard) monetary policies.*[25] However, based on information from *Positive Money* Network, recently, in Ireland, the five major banks have jointly established a Banking Culture Board, for the purpose of rebuilding the public trust in the financial (especially banking) sector. The success of such an initiative mainly lies in creating a real dialogue between banks and their clients, irrespective of each one's financial assets. It is high time for the key banking institutions to abandon their psychosocial complex of superiority, favoured by unhealthy oligopolistic position and policy.

3. The dramatic events of the 1990s and 2000s put a big question mark on the real – not pretended – target of the aggressive campaign for the almost absolute 'independence' of the central banks, which was imposed internationally, with a special emphasis within the European Union, since early 1990s. But did this so-called 'independence' prevent the wild financial speculation from mid-1990s until the burst of GFR? The main pretext for hyperbolizing central banks' autonomy/independence was to prevent the interference of 'political factors' in the monetary decision process. In reality, the only concrete result was the extreme aggravation of the rift between nominal and real facets of the economy. The truth is that "decisions about how much emergency money to create and to whom it should be distributed are highly political, as the popular anger following the financial bailout of banks in the crisis revealed. Institutions, whether national or supranational, are important ways of embodying these political judgements so that monetary management, in good times and bad, can be effective."[26]

The discretionary non-standard monetary policies poured billions of strong currencies into big banks accounts (USD, EUR, GBP, JPY, et al.), while real economy and population at large were almost ignored. This is why central banks need a new legitimacy, based on stringent social and real economy necessities and a comprehensive consensus.

Since its enaction (1998), the European Central Bank (ECB)'s mandate had a very limited definition, being almost exclusively focused on stability of prices (while, for example, the US Federal Reserve had, after the WW II, a rather ambivalent objective – price stability *and* full employment).

However, a closer analysis of the main treaties of the European Union shows a more complex approach (S.Jourdan, `Why ECB has a legal obligation to account for environmental protection`, *PositiveMoney, Oct.1, 2018).* Thus, the Treaty of the Functioning of the EU underlines: "Without

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[25] *Lucian C. Ionescu, Hesitant attempts towards normalizing monetary policies in JFME, no.4/2017*
[26] *M. King, The End of Alchemy, ed. Little, Brown, 2016, p.247*

prejudice to the objective of price stability, the ESCB (the European System of Central Banks) shall support the general economic policies in the Union as laid in the Article 3 of the Treaty on European Union."(Art. 127)

But due to the specific way the banking system has evolved, there is a sort of a mutual 'captivity' between central banks and the banking institutions. A central bank has to keep the big banks 'satisfied' with its monetary policy. Otherwise the important banks – especially the transnational ones – could rather easily destabilize the money markets, under the cover of 'free market' operations, including manipulation of huge fund transfers between 'mother' banks and their international subsidiaries and branches. At the same time, central banks are supposed to bail out gigantic financial corporations during recessionary periods. It is more and more obvious that "central banks do not exist just to twiddle their thumbs and keep down inflation. (…) The pragmatic policies adopted after the crisis of 2008 avoided the worst, but they did not really provide a durable response to the structural problems that made the crisis possible, including the crying lack of financial transparency and the rise of inequality. The crisis of 2008 was the first crisis of the globalized patrimonial capitalism of the twenty-first century. It is unlikely to be the last."[27] Similarly, John Mauldin appreciates the most important problem is that central banks "create debt with little regard for how it will be used. That is how we get artificial booms and subsequent bursts."(*Mauldin Economics,* Oct. 27, 2018)

In this global context, EU should endeavour a multi-dimensional enterprise for improving the *euro's* institutional and functioning framework, learning from mistakes and turning into account the experience accumulated in almost two decades of existence: avoiding bad allocation of monetary & financial funds, mainly by speculative credits, and keeping under a strict control the `shadow banking`. There is not an accident that, in the last decade, important economists consider that the `classic` business cycle seems to be replaced by a *financial* cycle, which, in fact, is the upper stage of the *credit* cycle, specific to the 19th century (see, e.g., J.A. Schumpeter). This new type of social-economic cycle is reflecting the *inner nature of the up-to-date transnational financial oligopolistic capitalism*.

Therefore, in our view, *euro* can survive and strengthen only as a highly efficient means to hit the final target/aim: a homogenous union of developed national economies, contributing to the elimination of gaps evidenced by the real economy indicators, based on a profound democratic decision process.

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METHODOLOGICAL PROPOSAL FOR THE ASSESSMENT OF THE INCOME ASYMMETRY

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Abstract:

One of the fundamental issues in the field of social justice is economic polarization (income and/or wealth inequality). Starting from the statu quo of the social statistics methodology, the study examines for the point of view logical and algebraic the possibility of a new classification in the field of economic polarization based on the combination of two typical statistical values: median and arithmetic mean. The population distribution could be obtained according to two simultaneous criteria: a) positioning on the „income/wealth list"; b) the extent of the average value on the surface of the distribution. Finally, the study proposes calculating new statistical indicators with a higher significance in the interpretation of economic polarization.

Keywords: *social justice, economic polarization, median, arithmetic mean, economic inequality*

JEL classification: B49, E02, P16

Introduction

The income asymmetry is one of the most problematic outcomes of the free market and even of the democratic society in the modern world. Although the income[29] per capita (that is, the average income) permanently increases, the gap between the lowest income and the highest one increases or, in the best case, doesn't decreases. Such a situation put not only questions related to the social justice or social morality, but it has a significant potential to generate vulnerabilities for the sustainable character of the economic growth (Dinga, 2018, p.35) and the social progress. Consequently, it becomes of a great theoretical and methodological interest to correctly measure the discrepancies among different categories of income, or different categories of representative agents who receive incomes in the social process (especially, in the economic process). Of course, for a long time, many methods, techniques, and tools – either of statistical or of algebraic kind – have been developed and used, in such field is not at all a virgin territory. However, in the present short study we have a tentative to make a new proposal of such a measuring, starting from a perspective of the social justice (Dinga, 2018, p.282), in its two basic types – commutative and distributive. So, the main objective of the study is to formulate and analyse from the point of view logical and algebraic a possible measure (indicator) of the income asymmetry in Romania.

The methodology

The methodology used mainly consists in: a) logical assessment; b) statistical calculus and evaluation; c) algebraic construction; d) theoretically economic interpretation; e) social evaluation.

The research

1. Establishing the categories of representative social agents

In order to measure the degree of the income inequality (or income asymmetry) we need firstly to know who receive incomes. It must be mentioned that by income is here understood the income which is the result of contribution to the social product (Gross Domestic Product – GDP). So, the income can get by: a) salary; b) wage; c) pensions; d) capital; e) rents and so on. Because the empirical official data restrictions, we'll restrain the concept of income to employee compensation. So, we need to establish the representative social agents which receive employee compensation. By representative social agent[30] we understand a relatively homogenous group of employees (for example, based on the economic sector where they work, or other relevant criteria). Let's note with

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[29] *For the present study, we consider as income the current income only (so, neither wealth nor permanent income will be taken into account)*

[30] *The concept of representative social agent is of the same kind of the concept of the representative agent understood in the economic theory as a medium homo oeconomicus.*

$R(k)$ the class k of the representative social agent, where $k = 1,2, \dots n$, $k \in \mathbb{N}$. For simplicity (without reduce the generality of the approach) we'll assume that $n = (2k - 1)$, i.e., the number of classes of representative social agents are odd[31] is. Assuming the average employee compensation for the class i of representative is i_k. Having the value for all i_k, we can now to order the classes of representatives, in a decreasing order, from left to right, as follows:

$$R_{k_1}, R_{k_2}, \dots, R_{k_{\frac{n+1}{2}}}, \dots, R_{k_n}$$

By rearranging a series of data, it put be written as:

$$R_1, R_2, \dots R_{\frac{n-1}{2}}, R_{\frac{n+1}{2}}, R_{\frac{n+3}{2}}, \dots R_{n-1}, R_n$$

On the middle position is the class $R_{\frac{n+1}{2}}$, that is, this is the median class. As to the median class corresponds the median income, we have, in fact, at the middle of the series, the median income.

2. Medium (average) and median in measuring the income asymmetry

The easiest way to split the income distribution by representative social agents is to use the medium (average) of the income. So, the asymmetry of the income distribution could be calculate based on the spread of the income around the medium (average), for example using the variance (or its root – standard deviation)[32]. We propose to use the geometric average instead of the arithmetic one, because, although the former reduces the absolute amplitude of the average value compared with the arithmetic average, it has a very interesting property: the values under the average influence more the average then the values upper the average (Roegen, 1998, p.118). This property acts as a genuine automatic stabilizer of the geometric value, which makes it more relevant in connection with the present study purpose. For example, if the income under the average increases with the same value as which the income upper the average decreases, the geometric average will increase, while the arithmetic average will remain constant. From the point of view of the income asymmetry at the society level, this property can be significant especially when the topic of the social justice is of interest[33] (Rawls, 2011, p.118).

Let's note the income values by the representative social agents with i_k. So, we can now calculate the geometric average (G_i) and the median (M_i) of income, as follows:

$$G_i = \sqrt[n]{\prod_{k=1}^{n} i_k} \equiv i^G$$

$$M_i = i_{\frac{n+1}{2}} = i^M$$

3. Organizing the income distribution by representative social agents

We'll proceed now to organize the n (with $n = 2k - 1$, and $k \in \mathbb{N}$) representative social agents, presumed as being ordered in a decreasing way after the level of income, as follows:

- top down $\frac{n-1}{2}$ representative social agents (RSA), named top-half of RSA (TH);
- the RSA corresponding to i^M, named separation RSA (S-RSA);
- bottom up $\frac{n-1}{2}$ representative social agents (RSA), named bottom-half of RSA (BH).

Now, let's calculate the geometric average and the median for the two half of a series, that is:

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[31] If $n = 2k$, that is n is an even number, the pair of values at the middle of the series will be considered in their average.

[32] If must be get comparisons among some series, then it is better to use the coefficient of variation – the standard deviation over the average).

[33] See, here, the principle of difference in getting the social justice, especially from the perspective of the distributive social justice (the principle of difference in the social justice is detailed examined by John Rawls)

$$G_i^{TH} = \sqrt[\frac{n-1}{2}]{\prod_{k=1}^{\frac{n-1}{2}} i_k^{TH}} = i_{TH}^G$$

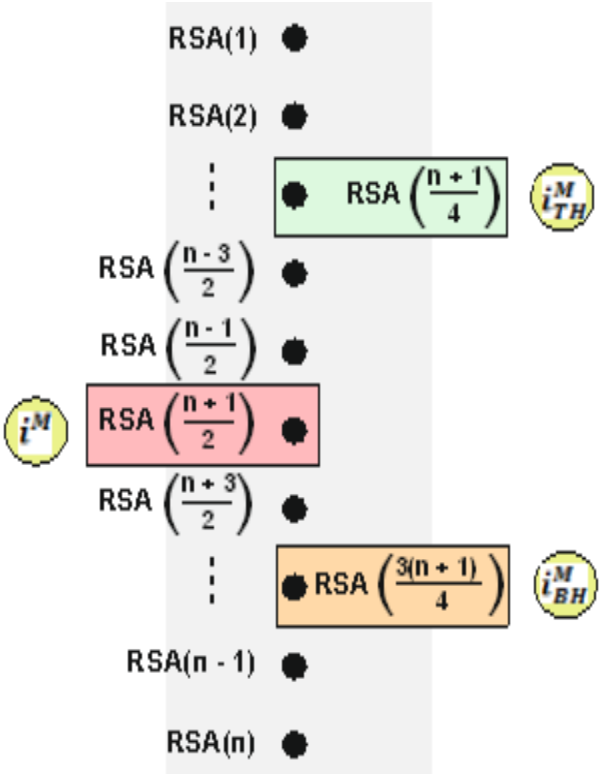
$$G_i^{BH} = \sqrt[\frac{n-1}{2}]{\prod_{k=1}^{\frac{n-1}{2}} i_k^{BH}} = i_{BH}^G$$

$$M_i^{TH} = i_{\frac{n+1}{4}} = i_{TH}^M$$

$$M_i^{BH} = i_{\frac{3(n+1)}{4}} = i_{BH}^M$$

In figure 1 is visualized this reorganizing of a initial series of the RSA.

Figure 1. Distribution of RSA series in decreasing order of income value



Source: author construction.

4. Structuring the ordered a series of RSA

Based on figure 1, we will extract the following modules of RSA (figure 2 visually illustrates them):

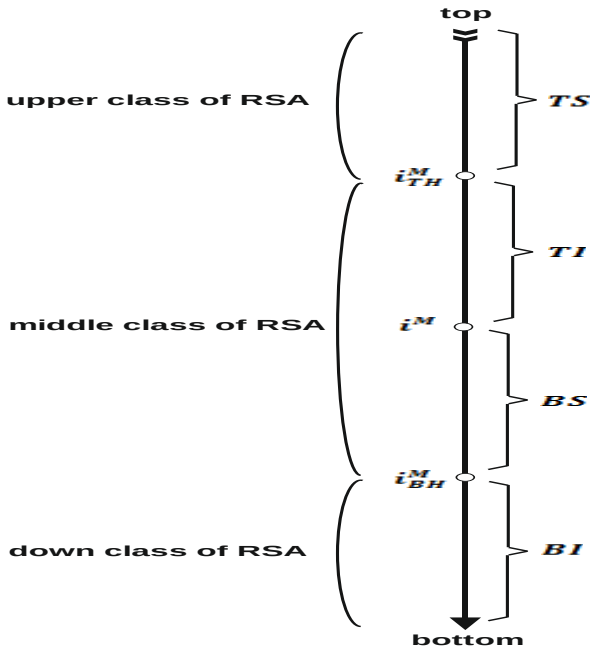
I. the top-superior income RSA (TS): comprises the RSA between $RSA(1)$ and $RSA\left(\frac{n-3}{4}\right)$;

II. the top-inferior income RSA (TI): comprises the RSA between $RSA\left(\frac{n+5}{4}\right)$ and $RSA\left(\frac{n-1}{2}\right)$;

III. the bottom-superior income RSA (BS): comprises the RSA between $RSA\left(\frac{n+1}{2}\right)$ and $RSA\left(\frac{3n-1}{4}\right)$;

IV. the bottom-inferior income RSA (BI): comprises the RSA between $RSA\left(\frac{3n+7}{4}\right)$ and $RSA(n)$

Figure 2. The four modules and the three classes of RSA for the asymmetry analysis



Source: author construction.

Conclusions

The paper has brought some theoretical contributions, of a logical and algebraic nature, regarding the identification of new calculation methods, of some indicators with a higher significance in interpreting the phenomenon of economic polarization.

The issue of income asymmetry can not be solved from the perspective of social justice or social morality and generates vulnerabilities in terms of the sustainability of economic growth and social progress.

In measuring the level of income inequality, the criterion of relatively homogeneous group (classes) of employee (representative social agents - RSA) was taken into account and by identifying the middle position- the median class (corresponding to the income value) based on algebraic calculus using the geometric average (which shows that the values under the average influence more the average then the values upper the average). This property of the geometric mean acts as an automatic stabilizer relevant to the present purpose of the work.

Finally, in the paper, four modules and three classes of RSA have been identified theoretically for the income asymmetry analysis.

Future possible developments

In order to continue the research, based on the general theoretical research carried out in the present paper, an empirical study will be conducted on the income asymmetry, by categories of representative social agents (RSA), regarding the current income, both nominal and real using official data sources.

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THE COSTS: THEORETICAL AND PRACTICAL APPROACHES

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Abstract

In this article, the authors studied the evolutionary process of costs, from actual costs to standard costs and activity costs. In the process of developing the costs, we found that at the basic raw material production stage, direct costs outweigh the indirect costs, but in the process of transforming the raw material into finished products there is a reverse process - indirect costs outweigh the costs direct, process related to cost-per-activity. That is why we believe that a new state strategy is needed on the producer price. We also think that although there are negative approaches to standard costs, these costs are welcome to fund social activities. We also consider that cost-benefit analysis of a social nature justifies, firstly, the social result obtained, and then costs. Therefore, the use of the concept of costs must be in line with the nature of the economic and social domain.

Keywords: costs, full costs, direct costs, indirect costs, standard, cost-per-activity, cost-benefit analysis, standard cost per student-weighted, normative value, value assignment.

JEL classification: H4, H72, H83

Introduction

Costs are a very important and current economic category for the entity, as they have a direct impact on its benefit, influencing the structure of the production price. In order to streamline production costs, costs (consumption) in the production of economic assets, the entity's managers must strictly manage cost control. To this end, managers need to know the cost structure and be able to analyze the cost per unit of product in dynamics and make timely decisions to improve cost use.

Costs and expenses are key elements of the entity's management control. Effective use of these two key elements depends, first of all, on the internal work of the entity; on the other hand, these key elements are under the external factors (competition, monopoly prices, inflation, etc.). That is why we consider the role of the state in a free economy that can influence economic policy.

"The economy can be compared to a ship, whose canvas is inflated by the free activity of the entrepreneurs and at the helm of which the state is. If the rudder is missing, the blades are harassed by the winds blowing in all directions, and the ship is in danger of spoiling." (Vasili LEONTIEV)

I. Definition and essence of the costs

Costs, as a key element of management control, are always in the attention of economics researchers, starting with their definition. Thus, in the modern Romanian dictionary we find that costs are "the amount of money spent for producing or buying a good, performing a work, providing a service" (DEX). Economist Viorel Ţurcanu, ASEM University Professor, addresses the costs (Consumption as follows: "Consumption (costs) is the entity's resources, used to produce products and provide services in order to obtain profit" [11, p.60].

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Romanian Economist Achim T. Baciu considers that "the cost is an economic category that expresses, in cash, the living and materialized labor costs incurred for the purchase or production and sale of a unit of material goods, executed works or services rendered by an enterprise "[2, p.11].

Economist Bugaian Larisa, professor at UTM, believes that "the economic cost term expresses the value of the resources used to complete an economic process that ends with a product or service" [3, p. 15].

Other cost-sharing researchers place the emphasis on spending, thus "cost is an expense or a cost amount determined by a product or place of business in which the good (product, work or service) occurs and a management period" [6, p. 18].

In the National Accounting Standards (NAS) "Costs (consumption) are the resuscitation used for the manufacture of products, the execution of works and the provision of services in order to obtain an income. As a rule, they are directly linked to the production process, and therefore occur as far as the marketing of finished products, goods and the provision of services "[13].

Financial costing distinguishes between costs and expenses. If the costs are directly related to the process of production and occur up to the sale of finished products and are included in the sales price, then the costs arise from the economic and financial activity of the entity and are not directly related to the production process. They are reflected in the entity's Financial Statement and the determination of the (loss) period of the management to the tax is deducted from the income from different activities.

The production costs are of great importance to the entity. University Professor (ASEM) Alexandru Nederiţă considers that "production costs are the resources expressed in terms of value and consumed for the manufacture of goods or services" [5, pp. 481-484].

Researchers of the cost concept were motivated by the impact of costs on financial indicators. Therefore, it was necessary to investigate the evolution of this concept, which is directly related to the efficiency of any activity.

II. The evolution of the cost concept

The notion of cost has a special history. The cost is related to efficiency, having a direct impact on the benefit of the entity.

Based on the essence and purpose of the cost, researchers of all time have been looking for cost-effective ways, so they have evolved into evolutionary development. If we look at the evolution of costs, we realize that research has begun at the real cost, when producers tended to increase costs, spending to increase the volume of their production, but have suffered from scarce resources. Then it went to the planned, standardized or standard costs.

The issue of spending efficient has always been related to costs. Then, from the planned costs, it went to the notion of standard cost. This notion appears at the beginning of the twentieth century as a standard cost method. The standard cost method establishes anticipated direct and indirect production costs, serving as an orientative trend for the enterprise. Then the standard cost method was used in all economic sectors, including the public sector.

Thus, in the preparation of the public budget (state budget), certain statutory costs, called budget costs or standard budget costs, are based on the establishment of functional budget expenditures (eg general government functions, education, health care, etc.). Thus, standard costs are cost measurement standards, the purpose of which is tendency orientation and comparison with the actual ones.

Searches for cost effectiveness and costs have been worrying economists on the ground since the 20th century. Economics researchers questioned the abandonment of the standard cost system that prevailed in the US in the last decades of the 19th and early 20th centuries.

The need for a new cost approach stemmed from the fact that the related costs increased both relative and absolute terms, as companies diversified into several product lines, customers, channels and regions and offered specialized features and services.

In the 1980s, standard cost systems designed during the 75-year-old scientific management move nowadays no longer reflects the current economic reality.

A very large contribution to the development of the cost concept was brought by the American scholar Kaplan Robert Steven (1940), a professor at the Harvard Business School. Kaplan Robert S. in collaboration with the scientist Anderson Steven R. investigated costs at a different angle from the point of view of how to consume resources to produce a good, promoting a new approach in the "Time-Driven Activity-Based Costing" (2004) in which they promoted the concept of cost-per-activity [10]. Activity-Based Costing (ABC) tries to measure product cost and customer profitability.

As originally introduced in the 1980s, the ABC method corrected the serious deficiencies of the traditional cost system. Traditional systems typically use only three cost categories: labor, materials and general expenses.

Many companies have moved from production strategies to those that offer customers a variety of varieties, features and options. The customer oriented strategy has tried to attract, retain and grow the business by offering services such as: Producing and storing a larger variety of products; supporting multiple incoming and outgoing channels (delivery of finished products, production and delivery in smaller sizes directly to customers, etc.).

All these new services have created value and loyalty among customers, but none has come for free. To provide extensive variety and new features and services, companies have had to allocate resources for engineering, programming, reception, storage, inspection, configuration, material handling, packaging, distribution.

The related costs have grown both relative and absolute, as companies have diversified into several product lines, customers, channels and regions and have provided specialized features and services.

The ABC method or cost-per-activity has greatly increased indirect costs, outpacing direct costs. But this is reality in an integrated economy. In this situation, state intervention is needed to support the underlying producer who under the new conditions is disadvantaged. The state must develop an appropriate economic policy for all parties.

The economy can be compared to a ship, the canvas of which is inflated by the free activity of the entrepreneurs and at the helm of which the state is. If the rudder is missing, the blades are harassed by winds blowing from all directions, and the ship is in danger of wreckage. (Vasili LEONTIEV)

But research into the cost concept continued, causing scientists to expand this concept from the effectiveness of the individual's interest, the entity to the effectiveness of social interest. This approach is dealt with profoundly and in detail by a group of American scholars: Anthony E. Boardman; David H. Greenberg; Aidan R.Vining; David L. Weimer (all university professors) in "Cost-benefit analysis: concepts and practice", 2nd Edition, 2001, 660p. (Translated from English in Romanian in 2004, 2nd edition - Ch .: ARC, 2004). ISBN 9975-61-337-3 [1].

This work is conceptually and practically grounded, being the most valuable work that deals with the CBA (cost-benefit analysis) method. The authors of this paper focus on the cost-benefit link, focusing on the social benefit, which does not always coincide with the benefit of the producing entity.

Cost-benefit analysis is a method of assessing a policy that quantifies in monetary terms the value of all the consequences of this policy on all members of society. The net social benefit expresses the value of this policy. The difference between social benefits (B) and social costs m (C) is the net social benefit (BSN): BSN = B - C.

We could exemplify this approach through the experience of the US Government that supported through funding and research to evaluate a series of "pilot tests", "social experiments" on social assistance reform and eventually a policy change social.

CBA quantifies the value of the consequences of state policy on the members of society. For example, with two different lives, two lives were saved! This is the essence of the social cost-benefit method. In the Republic of Moldova the cost and social benefit policy is found in the "First Home" Government Program.

III. Impact of costs on financial indicators

The research carried out by the National Institute of Economic Research in the area of setting agricultural production tariffs has served as a basis for the cost analysis of some crops in the agricultural branch [12, pp. 32-38]. Costs vary differently by structure in the value of the good (fixed costs and variable costs, direct costs and indirect costs). Our researches have demonstrated the situation in the Republic of Moldova agriculture. Because it is very difficult to analyze the process of costs by activity in agriculture, we have analyzed this process by phases: the raw material production phase and the processing stage in several agricultural crops.

In the first stage of production:

- for autumn wheat:

The weighted analysis shows that direct costs account for 97.08% of total cost structure

- (6872,5 / 7078,7) x 100 = 97,08 %.

Indirect costs account for 2.92% of the full cost structure

- (206.2 / 7078.7) x 100 = 2.92.

The weighted cost weighted analysis of full costs is 83.87% (84%);

- (5929.9 / 7078.7) x 100 = 83.77% (about 84%);

The share of fixed costs (constant) in the full cost is 15.83% (about 16%).

- (942,5 + other fixed assets 177,9 = 1120,4 lei),

- (1120,4 / 7078,7) x 100 = 15,83 %. (16%).

Conclusion. In large agricultural enterprises processing one ha of wheat in autumn, where there is a quantity of 25.0 quintals, the full costs are 7078.7 lei, these costs are equal to the normed costs. Therefore, for 1 t of raw wheat the total costs are equal to 2831.5 (7078.7: 2.5 = 2831.5 lei / t). If it produces 1 t of winter wheat at a market price of 3500 lei, then the farmer would benefit from 668.5 lei per hectare, or 23.6% will be the rate of profitability (3500: 2831.5) x 100 = 23.61%. If we refer to the producer price per 1 t of autumn wheat in 2016 (2174 lei / t), then the farmer is in total loss, he can not cover his costs either. (P / p 2174 - Full cost 2831.5 = - 675.5 lei / t), being at a loss of 675.5 lei per tonne of autumn wheat produced.

Recommendation: In order to benefit the autumn wheat producer, the researchers from INCE, the university professor, the doctor habilitat Tudor BAJURA and other researchers recommend to the Moldovan Government a reasonable price for autumn wheat producers and an annual of 3500 MDL lei, therefore the price for sale may not be less than 3500 lei / ton.

PB = VV - CV

Table 1. Producer price per tonne of grain in the dynamics of the years 2005-2017, (lei, Republic of Moldova)

Type of production	Measurement units	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Wheat	MDL / t	961	1077	2155	1464	961	1600	1987	2463	1845	1986	2430	2175	2262
Maize	MDL / t	1163	1284	2654	1555	1480	2257	2330	2906	1777	1951	2674	2585	2279
Sunflower	MDL / t	2348	2241	3963	2574	2402	4552	4572	6362	3875	4417	6592	6298	5489

Source: www.statistica.md. The price information for 2017 is from the Ministry of Agriculture of the Republic of Moldova.

-for corn grains:

In 2016, the producer's price per 1 t corn was 2585 lei / t. The difference between the selling price of one tonne of maize and the full cost per tonne of corn is 358.9 MDL per tonne of maize. (2585 - 2226,1 = 358.9 lei / t).

So the farmer has an income of 358.9 lei per ton of corn. The absolute benefit of the farmer at 1 ha will be (358.9 x3 = 1076.7 lei / ha.)

The profitability per 1 ha of maize will be 16.12% (1076.7 / 6678.2 x 100 = 16.12%;

The profitability per 1 t corn will be equal to 16.12% (358.9 / 2226.1 x 100 = 16.12%, or (sales price per tonne / full cost per ton) x 100% = 2585 lei / 2226,1 x 100% = 16,12%

- for sunflower seeds:

In 2016, the producer's price per 1 t of sunflower was 6298 lei / t. The difference between the selling price of one tonne of sunflower and the full cost per tonne of sunflower is 1556.8 lei.

(6298 Pp / t - 4741.2 Cost / t = 1556.8 lei).

So the farmer has an income of 1556.8 lei per ton of sunflower. The absolute benefit of the farmer at 1 hectare will be 3113.6 lei / ha. (1556.8 x 2 = 3113.6 lei / ha.).

Return on 1 ha of sunflower will be 32.84%. (3113.6 / 9482.4) x 100 = 32.84%).

The profitability per 1 tonne of sunflower will be equal to 32.84% (1556.8 / 4741.2 x 100 = 32.84%, or sales price per tonne / Full cost per ton) x 100%.

Table 2. Comparative analysis of the two phases

Grain type	Phase I - basic manufacturer's work)				(Phase II processing of raw material)			
	P/p lei/t	Cost/u/t	Prof./ u/t	Economic Rentability %.	P/p lei/t	Cost/u/t	Prof./u/t	Economic Rentability %
1	2	3	4	5	6	7	8	9
Wheat	2500	1968	532	27,0	3858	3156	702	47,0
Maize	2315	1571	744	47,3	4164	3258	907	67,7
Sunflower	5000	3247	1753	54,0	8814	6648	2166	80,1

Source: Analyzed and elaborated on the basis of information from the Ministry of Agriculture of the Republic of Moldova

The analysis of these three crops demonstrates the impact of costs on the absolute benefit per hectare and the profitability per hectare, these two financial indicators being based on costs and the market price of one tonne of cereals.

IV. Use of standard costing in the Republic of Moldova

Although the ABC approach criticizes the standard cost method, indicating the deficiencies of this method, we consider that we can not refer to activity costs in all areas. The activities are clearly visible in the companies producing goods, but in the budgetary sector, for example, the financing of education based on the standard cost per weighted pupil is very welcome.

Although standard costing is a cost benchmark, it changes year by year under the influence of a number of factors.

If we refer to the financing of pre-university education, the case of the Republic of Moldova, based on the standard cost per weighted pupil [8], we find that the normative values for an institution and the normative value for a weighted pupil* are increasing from year to year. Funding is based on science-based formulas. Thus, for the financing of a pre-university education institution the following formula is used:

$$V = (A \times N + B) \times K + R + I \qquad (1.1.)$$

where:

V - the volume of allowances for a specific institution on the expenditure side;

A - normative value for a "weighted pupil";

B - the normative value for an institution;

N - the number of "weighted pupils" in a concrete institution;

K - the coefficient of the administrative-territorial unit, equal to 0.95, which can not be less than this value (maximum 3% for the component of the second level administrative-territorial unit and maximum 2% for the inclusive education fund);

R - allocations allocated to a concrete educational institution from the component of the administrative-territorial unit;

I - allowances allocated to a specific institution from the inclusive education fund.

Note: *Weighted pupils: The data on each class is multiplied by the weighting coefficients for each group. Student weighting ratios: 0.75 - for students in grades 1-4; 1,00 - for students of grades 5-9; 1,22 - for students in grades 10-12.

(Example: Grade 1-4 = 120 pupils x 0.75 = 90.0 weighted pupils etc.)

Volume of allowances for small schools

The volume of allocations for small schools in primary and secondary education is determined by the following formulas:

For Primary Schools with a number equal to or less than 41 "weighted students":

$$V = N \times (N1 * A + B) / N1 * K + R + I, \quad (1.2.)$$

where:

V - the volume of allowances for a specific institution in the part relating to the expenditure envisaged;

N - the number of "weighted pupils" in a concrete institution;

N1 - admitted threshold of the number of students in the institution, 41 "weighted students";

A - normative value for a "weighted pupil";

B - the normative value for an institution;

K - the coefficient of the administrative-territorial unit equal to 0.95, which can not be less than this value (maximum 3% for the component of the administrative-territorial unit and maximum 2% for the inclusive education fund);

R - allocations allocated to a specific institution from the component of the administrative-territorial unit;

I - allowances allocated to a specific institution from the Inclusive Education Fund.

For schools with a number equal to or less than 91 "weighted students":

$$V = N \times (N\ 2 \times A + B) / N\ 2 \times K + I, \quad (1.3.)$$

where:

V - the volume of allowances for an educational institution;

N - the number of "weighted pupils" in an educational institution;

N2 - the admitted threshold of the number of students in the institution, 91 "weighted students";

A - normative value for a "weighted pupil";

B - the normative value for an educational institution;

K - the coefficient of the administrative-territorial unit, equal to 0.95, which can not be less than this value (maximum 3% for the component of the administrative-territorial unit and maximum 2% for the inclusive education fund);

I - allowances allocated to a specific education institution from the inclusive education fund.

Below we present the funding of a high school based on the standard cost per weighted pupil for the 2017 budgetary year.

The volume of allowances estimated according to the formula is supplemented by student spending on food. The volume of allowances for the year 2017 at the "Ion Luca Caragiale" Theoretical High School is calculated as follows:

Total number of students - 1261

The normative value per pupil (A) - 9,803.00 lei

The normative value per institution (B) - 449 572.00 lei

Nr. of weighted students:

I-IV: 544 * 0,75 = 408

V-IX: 459 * 1,00 = 459 ⟺ 1182 weighted students

X-XII: 258 * 1,22 = 315

V=(A x N+B) K+R+I; (1.4)

V = (9803 x 1182+449572) x 0,95= 11 434 882,1 lei

As a result of the calculations we can state that the state granted 11 434 882,1 lei to the educational institution (high school) from the state budget for the financing of the educational services in the budgetary year 2017.

When calculating the volume of the allowance for the analyzed lyceum for the budget year 2017, there are no allocations from the raion component (R) and no allocations from the inclusive education fund (I), of these parameters were not taken into account, they did not were foreseen for this institution in the calculation year.

The table below presents the dynamic growth of value norms for educational institutions in the Republic of Moldova.

Table 3. Financing of pre-university education based on standard student cost (2014-2020), lei (MDL)

Normative Value	2014	2015	2016	2017	2018	2019	2020
The amount of the normative value for a "weighted pupil"	6929,0	8771,0	9603,0	9803,0	10 445,0	11218,0	11986,0
The amount of the normative value for an institution	402998,0	428982,0	450996,0	449572,0	477880,0	513258,0	548382,0

Source: Methodological notes on the elaboration of the draft budgets by the local authorities for the respective years. / MF of the Republic of Moldova.

Circular on the drafting by the local public administration authorities of 2018 draft budgets and estimates for the years 2019-2020.

Particularities regarding local public administration authorities drafting local budgets for 2018 and estimates for 2019-2020. Annex no. 1 at the circular of MF no. 06/27 of August 17, 2017.

The standard cost method, used for budget financing, establishes in advance the direct and indirect costs, in this case, for education services, serving as an orientative trend for the institution.

Thus, in the preparation of the public budget (state budget), certain statutory costs, called budget costs or standard budget costs, are based on the establishment of functional budget expenditures (eg general government functions, education, health care, etc.).

Thus, standard costs are cost measurement standards, the purpose of which is tendency orientation and comparison with the actual ones.

Although they are cost-measuring standards, they change according to a number of economic and social factors.

V. Conclusions and recommendations

From the research on costs we can see the following:

1. Cost is an expense or an amount of expenditure determined by a product or place of business in which the good (product, work or service) occurs and a period of management.
2. Costs have passed an evolutionary process, being influenced by the need for cost efficiency, resource consumption. Thus, actual costs, which were soon abandoned, went to planned, standardized or preliminary costs. Standard costs were then referred to as standard costs or budget costs.
3. Standard costs are benchmarking of actual production costs to standard for strategic decision making.
4. From the point of view of cost structure, analysis and impact on financial indicators, new approaches emerged in the first decades of the 21st century: full costs are abandoned, replaced by cost-per-activity.
5. This new approach (cost-per-activity) went into the literature under the ABC (Activity Based Costing) method. This new trend is considered by specialists as an innovation in managerial accounting at the end of the 20th century.
6. From our point of view, this model corresponds to the economic integration stage, the basic manufacturer can not afford to have all the services necessary to prepare the product for delivery. The cost-per-activity model demonstrates that indirect costs significantly outweigh direct costs.
7. We also believe that the standard-based cost system can be applied more effectively to public services, such as the Republic of Moldova, the financing of pre-university education on the basis of the standard cost per weighted pupil, because there are three categories of costs: labor, materials and general expenses.

Recommendations

1. Standard costs should not be abandoned, they serve as a guideline, they are a benchmark of scientifically established costs, but they should be reviewed each year, reflecting the changes taking place in the country's economy. We see this phenomenon in determining the standard cost per pupil weighted at financing the pre-university education in the Republic of Moldova.
2. In agriculture, the notion of standard cost does not have to be standardized. This stage is past, outdated. At the same time it is necessary to investigate the costs of activities, which is insufficient in the Republic of Moldova.

3. We propose to use the parity price policy, which would balance inter-relationships, especially between agriculture and industry. This is a necessity demanded by the economic character of the Republic of Moldova. Therefore, the Ministry of Economy should calculate activity costs, new cost accounting and market pricing, giving priority to the primary producer, the raw material manufacturer.
4. The authors' research on the financing of gymnasiums has demonstrated the financial efforts made by the state budget to finance schools with a number of weighted pupils equal to or less than 41 weighted students or 91 weighted pupils. Expenditure is high, but the quality of studies is very low. The problem must be solved for the benefit of large, district-performing schools. We believe that the money spent inefficiently for the maintenance of these schools should be directed to prepare the conditions for the children coming from small schools (gymnasiums) to normal schools where they are performing highly qualified teachers.

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SYSTEMIC LIQUIDITY RISK MANAGEMENT THROUGH MACRO-PRUDENTIAL INSTRUMENTS

Victoria POSTOLACHE[36]

Abstract

This article focuses on problems regarding the effective management of bank liquidity risk in terms of systemic vulnerability of the banking sector. The necessity for an efficient management of systemic liquidity risk is conditioned on problems that faced to banks in providing sufficient liquidity to its business. In such circumstances it is necessary to identify not only macro-prudential instruments that would mitigate systemic liquidity risk, but also their role in an effective managing.

The article includes the assessment of macro-prudential instruments for the management of systemic liquidity risk in correlation with warning methods for this risk occurrence.

Key words: *systemic liquidity risk, commercial bank, macro-prudential tools, bank management*

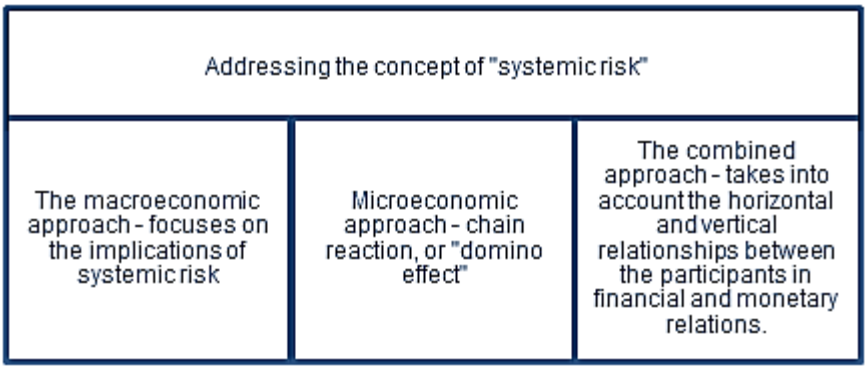
JEL Classification: *G21, G24; G28.*

1. Introduction

The financial stability of the banking system requires a systematic approach to all components of the banking system that interact under the influence of external and internal factors. Stability of the banking system represent a complete description of the state of the banking system, in which its essence and purpose is achieved in the country's economic system, being adequately and efficiently fulfilled its functions, and also offers the ability to maintain balance and restore the economic situation after the external shocks caused by crises.

The issue of determining systemic liquidity risk in the stability of the financial system of the banking system has not been sufficiently studied so far. Among scientists there is no uniform opinion on the interpretation of the notion of "systemic risk". An analysis of the existing approaches to the interpretation of this concept makes it possible to distinguish three main approaches, which are complementary and underline the essential characteristics (Figure 1).

Figure 1. Addressing the concept of "systemic risk"


Addressing the concept of "systemic risk"
The macroeconomic approach - focuses on the implications of systemic risk
Microeconomic approach - chain reaction, or "domino effect"
The combined approach - takes into account the horizontal and vertical relationships between the participants in financial and monetary relations.

Source: Elaborated by the author according to Samsonov N.I.:2013:272–275.

Systemic risk and its realization - a systemic crisis - is a phenomenon composed of several levels. These are based on the microeconomic risks of individual financial sector participants, which cannot pose a threat to the financial sector, as there are specific instruments to ensure risk for many of them. Risk have a systemic character, when structural causes, sector characteristics, desperate actions of individual participants are aggregated into the crisis potential. Thus, systemic risk, with a microeconomic base, is based on the structural features of the financial sector, making it possible to spread the vulnerability between the parties.

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2. Problem description

The international experience suggests that the systemic risk of the banking sector is influenced by market and credit risk. In order to characterize the methodological aspect of assessing the influence of operations with FDI on the systemic risk of the banking sector, we will stop in more detail on each particular risk. The risk issue occurs when all "shark" participants have identical positions in the financial market. The general description of the different approaches to the notion of "systemic risk" is reflected in Table 1.

According to the Global Financial Stability Report published annually, systemic liquidity risk represents the underestimated state of banking liquidity risk in the stable period (when liquidity is at a sufficient level), with confidence in the central bank, that it does not will allow banking panic, and thus will limit the impact of the liquidity shortage in the real economy.

Table 1. The conceptual aspect of systemic risk addressed in the literature

Author	Content
Bartholomew, Philip, and Gary Whalen. 1995. Fundamentals of Systemic Risk. In *Research in Financial Services: Banking, Financial Markets, and Systemic Risk,* vol. 7, edited by George G. Kaufman: Greenwich, Conn.: JAI. 1995, p. 3–17. , p. 4	Systemic risk "refers to an event having effects on the entire economic, banking, financial system, or rather only one or several institutions"
Mishkin, Frederic.Comment on Systemic Risk. In *Research in Financial Services: Banking, Financial Markets, and Systemic Risk,* vol. 7, edited by George Kaufman.: Greenwich, Conn.: JAI. 1995, p. 31–45., p. 32	The likelihood of an unexpected event that disrupts information on financial markets, which makes it impossible for them to efficiently channel funds for these parties with more productive investment opportunities
Kaufman, George G. Comment on Systemic Risk. In *Research in Financial Services: Banking, Financial Markets, and Systemic Risk,* vol. 7, edited by George G. Kaufman: Greenwich, Conn.: JAI. 1995, p. 47–52., p. 47	Systemic risk is "the likelihood that cumulative losses accumulate from an event that sets in motion a series of successive losses along a chain of institutions or markets that comprise a system. Systemic risk is the risk of a domino chain reaction that interconnects "
Federal Reserve Board. 2000. Fedwire Statistics: Annual Volume and Value. Available at: http://www.Federalreserve.gov/PaymentSystems/FedWire	In the payment system, systemic risk may arise if an institution participating in a private international payment network has been unable or unwilling to settle its net debt position. In the event that such a failure in the settlement has taken place, the creditors of the networking institution may also be unable to resolve their commitments
Bank for International Settlements (BIS). 1994. *64th Annual Report.* Basel, Switzerland: BIS, p. 177	"The risk of a participant's failure to meet its contractual obligations, which in turn will cause harm to other participants, causing a chain reaction that leads to wider financial difficulties"
Darby, Michael. Over-the-counter derivatives and systemic risk to the global financial system. NBER Working Paper Series, 1994, nr. 4801.	Has argued that recent financial innovations (credit derivatives) and increased activity of non-banking financial intermediaries (reinsurance companies) can reduce the risk of systemic shocks that are transmitted across the entire banking system.

Source: developed by the author according to the analysis of the studies shown in the table.

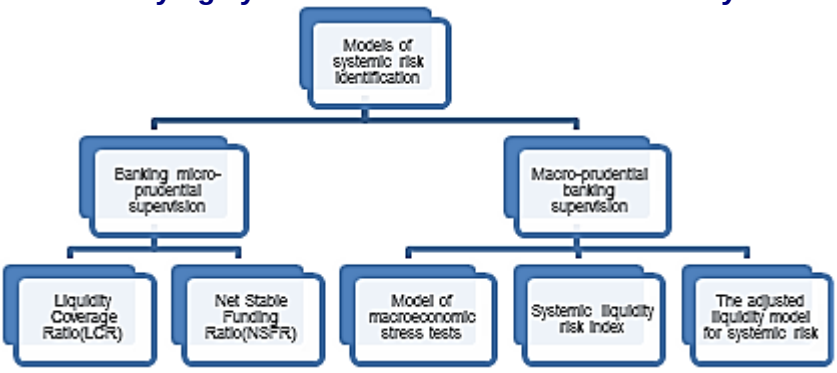
Based on the approaches discussed in various scientific papers, it is possible to provide a generalized definition of systemic liquidity risk. Systemic liquidity risk - the failure of several banks in the system (or systemic banks) to meet their obligations, characterized by the imbalance in cash flows (asset and liability maturities and value), a decrease in banks' capital, a decrease in confidence in the banking system, which could lead to a banking panic.

Throughout the research we will lead the macro-economic approach to define the essence of the concept of "systemic risk". Thus, systemic risk is the risk of a collapse of the banking system as a result of massive and simultaneous withdrawal of deposits (banking panic), which can have very serious consequences in the long run. Systemic risk is associated with a high degree of risk and panic of the population [2].

Thus, the systemic liquidity risk in this study will be approached as the potential danger of situations in which the reaction of economic agents to individual liquidity risk increases the lack of total reliability. Systemic liquidity risk always has serious consequences for the financial system as a whole, as it generates financial crises that affect financial stability, violates the allocation of resources, and ultimately affects the real economy.

In order to ensure the stability of the banking system and to prevent the emergence of systemic liquidity risk, it is necessary to investigate the methods of how to reduce systemic risk. The systemic risk management system should contain instruments that would mitigate the negative impact of both internal and external instability sources. After determining the sources of risk, institutional mechanisms will be identified that would enhance the security of the banking sector. These mechanisms should combine minimum restrictions on the rules that take into account the systemic risk that the bank has assumed in its activities.

Figure 2. Models for identifying systemic risks to ensure the stability of the banking system


Models of systemic risk identification
Banking micro-prudential supervision
Macro-prudential banking supervision
Liquidity Coverage Ratio(LCR)
Net Stable Funding Ratio(NSFR)
Model of macroeconomic stress tests
Systemic liquidity risk index
The adjusted liquidity model for systemic risk

Source: http://www.imf.org/external/pubs/ft/gfsr/2011/01/pdf/text.pdf;

International financial practices to ensure the stability of the banking system have developed two models of systemic risk identification, the purpose of which is to avoid systemic crises. The traditional model is implemented in the framework of micro-prudential banking supervision to ensure the transparency of the activities of financial institutions. A relatively new model includes macro-prudential supervision, where the estimated risk refers to the entire system and cannot be reduced to the sum of the individual risks. Creating this model on the basis of modern economic and mathematical science is a priority in managing systemic risks in the development of a methodological platform for a new global financial market regulation system (Figure 2).

New liquidity standards come to eliminate those shortfalls of financial resources that a bank has or can have in order to cover all its debts to the bank. Applying these standards is seen as an acknowledgment that the poor management of operational risks could reduce liquidity to the point where certain assets cannot be used to mitigate liquidity risks and to manage liquidity. The introduction of international liquidity standards concerns the short-term (30-day) insurance against liquidity shocks, and a long-term (1 year) high level of structural liquidity.

The liquidity coverage ratio is calculated using the following formula:

$$\text{LCR} = \frac{\text{High quality liqud assets}}{\text{Total net liquidity outflows over 30 days}} \geq 100\% \qquad (1)$$

For calculating the net stable funding ratio, the calculation relation is used:

$$\text{NSFR} = \frac{\text{Aviable amount of stable funding}}{\text{Required amount of stable fundng}} \geq 100\% \qquad (2)$$

The Systemic Liquidity Risk Index (SLRI) covers the usual increase in spreads of financial instruments that may occur during periods of stress. In order to address the specific set of investment strategies for investors in normal times, clearing positions can be opened in order to maintain low spreads (which makes them without risk), but this can not be done during periods of tension , Because there is a lack of funding.

The systemic risk-likely (LSR) liquidity model combines financial balance and market data for the calculation of the prospective liquidity risk indicator for financial institutions. Using this model, we can calculate the expected shortage of liquidity on a number of banks and the individual contribution of banks to the formation of such a deficit.

One of the most important features of systemic liquidity risk is that the financial sector is not capable of effectively neutralizing the causes of the accumulation of potential crises and avoiding the conditions for generating systemic liquidity risk. The imperfection of the market mechanism, in particular the perception of information by individuals, certain behavioral reasons of market participants, question the possibility of a systemic liquidity risk warning mechanism without reducing the effectiveness of the financial sector as a whole. Because of this, the state should play a special role in neutralizing the premises of the systemic crisis. The role of the state in regulating

systemic liquidity risk can be specified in the ultimate creditor policy. The central bank of any country may act as a creditor of last resort. There are two approaches to limiting systemic liquidity risk by the state. The traditional approach is to provide micro-prudential banking supervision, the second is the macro-prudential regulation of the entire system. Theoretically and practically, microprudential methods are ineffective in detecting, evaluating, and neutralizing systemic risk.

Indicators of the threat of systemic liquidity risk are presented in Table 2.

Table 2. Indicators of the threat of systemic liquidity risk

INDICATOR	CONTENT	DANGEROUS LEVEL OF INDICATOR
DYNAMICS OF HIGHLY LIQUID ASSETS, THE RATIO OF LIQUID ASSETS TO TOTAL ASSETS.	THE HIGH VOLATILITY OF VERY LIQUID ASSETS AND A SMALL SHARE OF LIQUID ASSETS IN TOTAL ASSETS INDICATE A SYSTEMIC RISK OF LIQUIDITY RISK.	THE RATIO OF LIQUID ASSETS TO TOTAL ASSETS - LESS THAN 10%.
THE "PROFITABILITY-LIQUIDITY" CURVE ON THE INTERBANK MARKET	THE HIGH VOLATILITY OF INTEREST RATES ON THE INTERBANK MARKET INDICATES THE EXISTENCE OF A SYSTEMIC RISK OF LIQUIDITY RISK.	A HIGH LEVEL AND A SHARP RISE IN INTEREST RATES.
VOLATILITY OF DAILY BALANCES IN NBM ACCOUNTS	HIGH VOLATILITY INDICATES AN UNCERTAIN AMOUNT OF BANK MONEY BALANCES WITH THE NBM, WHICH MAY AFFECT THE THREAT OF SYSTEMIC LIQUIDITY RISK.	REDUCED VOLUME AND A DRASTIC REDUCTION OF BALANCES OF CORRESPONDENT AND TRANSIT ACCOUNTS WITH THE NBM.
CORRESPONDENCE BETWEEN BANK ACCOUNTS WITH NBM AND BANK LIABILITIES	THE HIGHER THE VALUE OF THE INDICATOR, THE GREATER THE BANK'S ABILITY TO MEET ITS OBLIGATIONS.	A LOWER VALUE INDICATES A GREATER FAILURE OF THE BANK TO MEET ITS OBLIGATIONS.
SHARE OF PROBLEMATIC ASSETS IN THE TOTAL ASSETS OF THE BANKING SYSTEM	THE HIGHER THE RATIO OF NON-PERFORMING ASSETS TO THE TOTAL ASSETS OF THE BANKING SYSTEM, THE GREATER THE THREAT OF A SYSTEMIC CRISIS.	THE SHARE OF PROBLEMATIC ASSETS IN ASSETS - 15-20% (DEPENDING ON THE SIZE OF THE BANK AND OTHER FACTORS).
WITHDRAWAL OF DEPOSITS FROM TIME DEPOSITS AND SIGHT DEPOSITS OF BANKING INSTITUTIONS	WITHDRAWAL OF FUNDS HAS A NEGATIVE IMPACT ON BANKS' RESOURCES BASE, THERE IS A NEED FOR REFINANCING OPERATIONS BY THE NBM, GENERALLY INCREASING THE THREAT OF SYSTEMIC LIQUIDITY RISK.	10% -20% (DEPENDING ON VARIOUS FACTORS THAT MAY AFFECT THE BANKING INSTITUTION).
VOLATILITY OF THE PAID-UP LIABILITIES OF THE BANKING SYSTEM	THE LACK OF THE ANALYTICAL TREND OF PAID LIABILITIES DEMONSTRATES THE THREAT OF SYSTEMIC LIQUIDITY RISK.	THE TREND OF THE DETERMINATION COEFFICIENT FOR THE ANALYSIS OF PAID LIABILITIES IS APPROACHING ZERO.

The characteristics of the banking sector in the Republic of Moldova that contribute to the accumulation of systemic risks are:

-the low level of high-quality long-term investment in the real economy;

-strong dependence on the economic conjuncture of individual markets, influenced by speculative speculation and recession;

-insufficient diversification of certain types of risks in the balance sheet of banks;

-the lack of effective mechanisms that would fulfill some of the functions of the banking sector to ensure the security of the banking system;

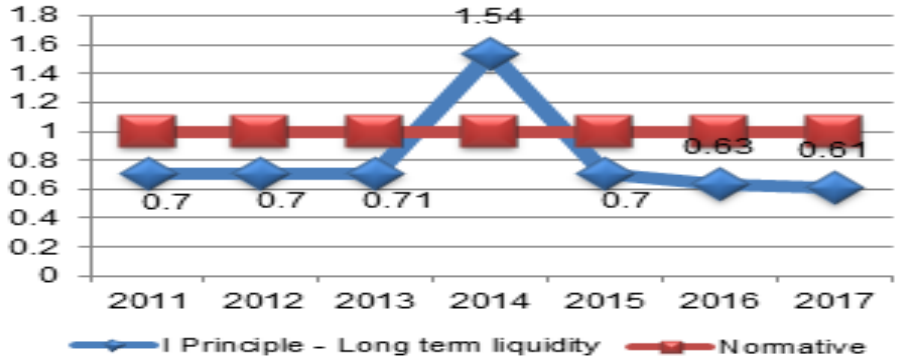
-high debt substitution over time before the banking system crisis;

-high dependence of banks on NBM refinancing.

Transforming cash flows between different segments in order to obtain speculative market gains.

In order to identify the likelihood of systemic liquidity risk in the banking sector of the Republic of Moldova, we will analyze the evolution of the long-term liquidity ratio, reflected in Figure 3.

Figure 3. Change in long-term liquidity ratio

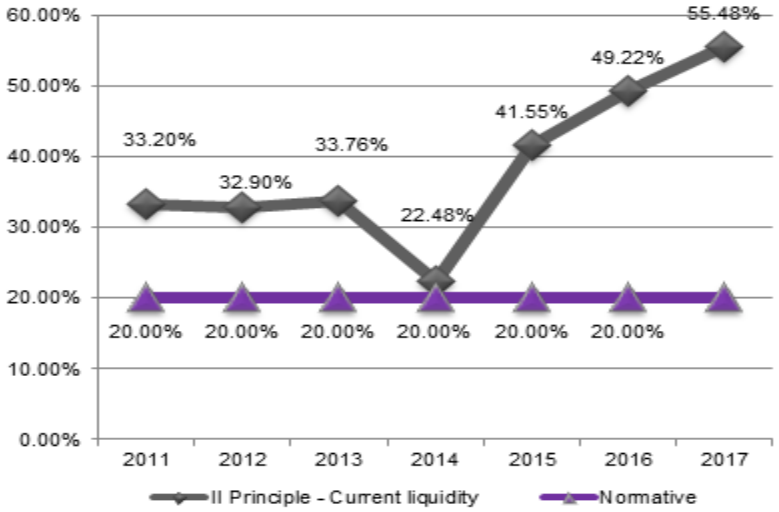


Source: elaborated by the author based on data from www.bnm.md/md/financial_indices_of_bank_system.

As we can see, the value of the indicator analyzed during the years 2011 - 2013 and 2015 - 2016 respects the norm imposed by the NBM, which invokes the lack of liquidity problems in the banking sector. At the same time, for the year 2014 the situation is less good, because the long-term liquidity ratio exceeds the NBM limit due to the theft in the banking sector. Respectively, for the end of 2014, the banking sector collapsed with a lack of liquidity that generated a systemic liquidity risk in all banks in the sector. One of the solutions taken by the NBM was the increase of the basic interest rate, which caused the increase of the interest on the bank deposits, but also the increase of the interest on the bank credits.

Current bank liquidity outcomes indicate that in the short term there were no shortcomings in the liquidity provision of banking operations, as the norm recommended by the NBM, even in 2014, when there were prerequisites for the emergence of systemic liquidity risk, was observed.

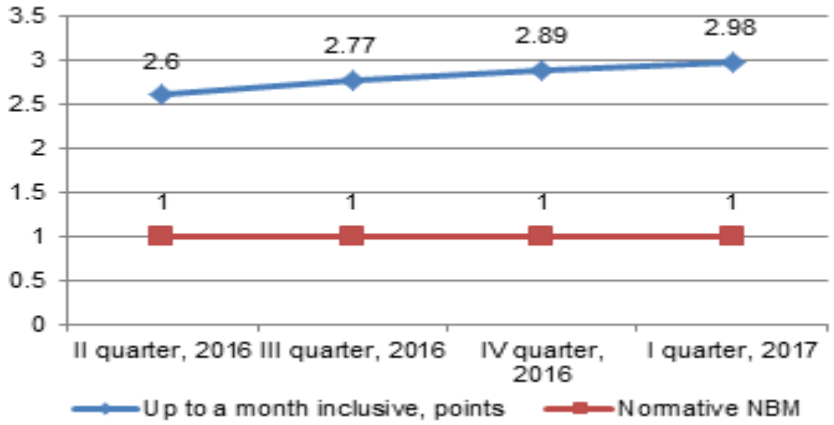
Figure 4: Change in current liquidity



Source: elaborated by the author based on data from www.bnm.md/md/financial_indices_of_bank_system.

To comply with BASEL III, the NBM has imposed banks to report from July 2016 data on the third principle of liquidity, which provides for liquidity on maturity bands up to one month; 1-3 months; 3-6 months; 6-12 months and over 12 months, expressed as the ratio between the actual liquidity and the required liquidity on each maturity band, shall not be less than the ratio established by the Bank's liquidity regulation. Principle III is to be calculated as the ratio between the actual liquidity and the required liquidity on each maturity band and must not be less than 1 per maturity band. If a liquidity surplus is recorded in any of the maturity bands, except for the last bands, it will be added to the actual liquidity of the next maturity bands.

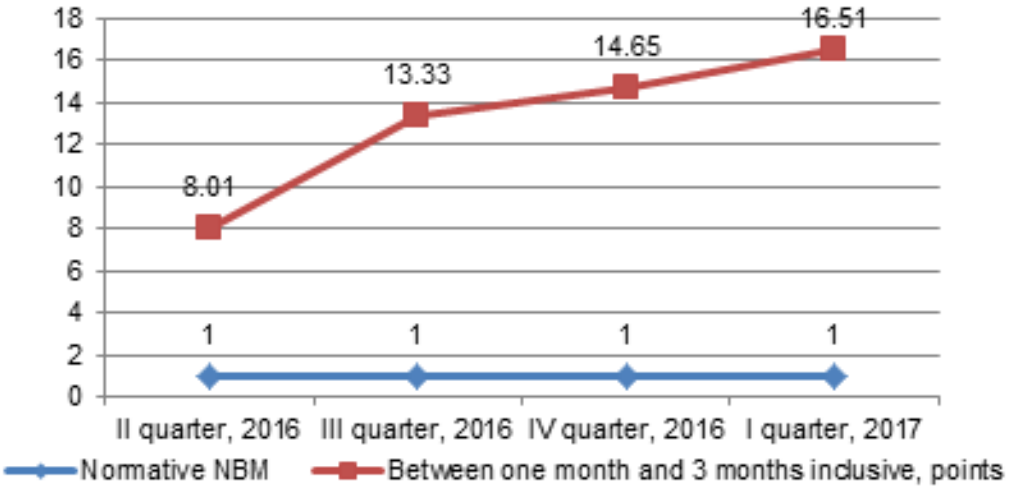
Figure 5. Evolution of liquidity on maturity bands, up to one month



Source: elaborated by the author based on data from www.bnm.md/md/financial_indices_of_bank_system.

Thus, according to the data submitted by the NBM for the second quarter of 2016 - the first quarter of 2017, liquidity on the maturity band up to one month is higher compared to the norm imposed by the NBM and reflects a positive situation of liquidity existence. However, in order to sterilize excess liquidity and improve the transmission mechanism of monetary policy decisions, the Executive board of the NBM decided to increase the required reserve ratio of the attracted funds in moldovan lei and in non-convertible currency by 3.0 percentage points Up to 40.0 percent of the calculation base for the maintenance period of the required reserves in Moldovan Lei: May 8, 2017 - June 7, 2017. At the same time, the reserve requirement of the attracted funds in freely convertible currency is maintained at The current level of 14.0% of the base.

Figure 6. Dynamics of liquidity on maturity bands, between one month and 3 months



Source: elaborated by the author based on data from www.bnm.md/md/financial_indices_of_bank_system.

From the data reflected in Figure 6, it is noted that for the period of one month to three months, liquidity on maturity bands is higher than the NBM norm and points to excess liquidity that does not generate economic growth.

A similar situation is also present for the other temporary intervals reflected in Figure 7

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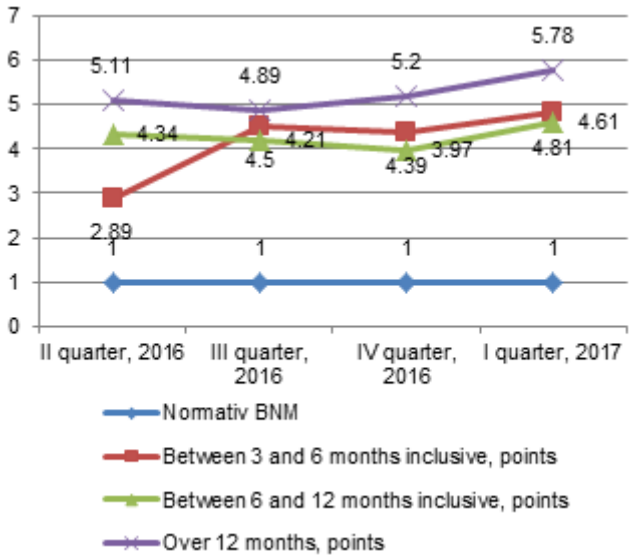
Figure 7. Trend of liquidity on maturity bands



Source: elaborated by the author based on data from www.bnm.md/md/financial_indices_of_bank_system.

3. Conclusion

The main stages of early warning of systemic risks of the banking system are as follows: definition of signal indicators, implementation of a preliminary assessment, clarification and verification using mathematical models and use of the management of indicator calculations, quantification and determination of the final evaluation.

As a result of the research, we propose the following measures for the timely and effective prevention of systemic liquidity risk:

To draw up plans, programs and stress scenario testing a liquidity risk system of the banking system of the Republic of Moldova;

Ensure transparency of banks and disclosure of maturities on assets and liabilities, which will appropriately assess the increase in liquidity risk in the banking system;

Implement a better evaluation of the overall cost-effectiveness of the various macro-prudential tools. For example, the additional capital requirement to limit insolvency risk among systemically important banks;

The inclusion of macro prudential instruments in liquidity risk management policy, which would provide for a more efficient separation of public and private debt from systemic liquidity risk;

Set the minimum value of investment in liquid assets and improve the role of the NBM as a last resort creditor, in which he provides liquidity during periods of stress;

Development of a banking system diagnostic concept to identify systemic liquidity risk in an integrated manner using the proposed neutralization measures;

Improve measures to curb speculative trends in foreign exchange markets due to the high sensitivity of the interbank lending market to the speculative dynamics of other assets.

Implementation of these and the use of BASEL III liquidity indicators will help ensure that banks have sufficient liquidity and can pay for their obligations without resorting to the sale of their assets or loans from the central bank.

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WAYS TO STRENGTHEN FINANCIAL MARKET INFRASTRUCTURE SYSTEM IN MOLDOVA FOR THE IMPLEMENTATION OF FINANCIAL CREDIT DERIVATIVES

Victoria POSTOLACHE[37]

Abstract

This article deals with the problems facing the financial market of the country in the use of financial instruments, particularly financial credit derivatives. Thus, one of the main objectives of development using financial derivatives for credit is to transform them into an effective mechanism to reduce the uncertainty of economic activity by creating a system of risk management accessible not only for banks, but also for economic entities, by providing informational function of the IFD market consisting in the harmonization of market participants' expectations with the future price of the goods.

Article reveals financial evaluation of the Moldovan banking sector in order to identify the possibility of subsequent application of financial derivatives and correlation of existing laws and infrastructure in Moldova with the EU countries.

Key words: *derivatives, credit derivatives, financial market risk.*

JEL Classification: *G3, F3*

1. Introduction

For the Republic of Moldova, the formation of the FDI market and the implementation of credit derivatives must be achieved not only with the involvement of the NBM, but also of the NCFM, of state bodies that would regulate the activity of banks in this field. The IFD market is needed for economy only in measure it allows to reduce the uncertainty of economic activity. According to this criterion, it is acceptable the development of the market in question on the basis of a proper policy on the part of the state.

One of the basic purposes of developing the use of credit derivatives in the near future is to turn them into an effective mechanism to reduce the uncertainty of economic activity by creating a risk management system accessible not only to banks but also to economic entities by achieving the informational function of the IFD market, which is limited to harmonizing the expectations of market participants towards the future price of goods.

In the context of the accession of the Republic of Moldova to the EU, it is necessary to investigate deficiencies in the trading of credit derivatives in emerging economies in order to avoid deficiencies in these countries. The causes for the limited practice of using credit derivatives to cover credit risk in emerging markets are:

lack of skills in dealing with credit derivatives;

contradictory legislation on banking risk assessment;

lack of supervisory bodies for transactions with credit financial derivatives;

lack of investors in the financial market;

difficulties in monitoring and evaluating the effectiveness of credit derivatives.

As a result of the research of literature addressing the problems of FDI trading in general and credit derivatives, especially in emerging markets, there is a rising need to address some critical issues that need to be considered before the successful development of these FDI transactions.

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2. Problem description

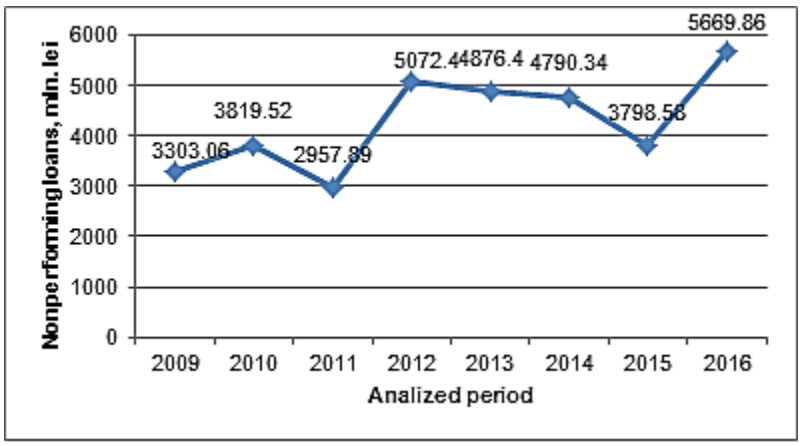
The development of transactions with credit derivatives, in particular credit risk swaps in the banking sector of the Republic of Moldova, is based on the existence of two important pillars, namely the regulatory pillar and the infrastructure pillar.

At the regulatory level there are prudential supervision rules, are attested the reporting standards, legal clarity and transparent accounting rules given by FINREP and the IFRS application in the banking field.

The "infrastructure" pillar involves the existence of the CCP, ISDA and a developed capital market, the monitoring of banks' activity on the credit derivatives market, certified investors and compliance with a code of conduct.

From these we deduce that the parameters of the use of credit derivatives in the Republic of Moldova should be comparable to the parameters of other developing markets, such as those of Turkey, Brazil or Kazakhstan, and to take into account the difficulties in terms of credit derivatives Encountered in the process of use in the banking sectors of those countries.

Figure 1. Evolution of non-performing loans in the banking sector of the Republic of Moldova



Source: elaborated by author according to www.bnm.md/md/financial_indices_of_bank_system.

In our opinion, credit derivatives will have a connotation in the domestic banking system because the credit risk, i.e. bad loans that currently have a significant share in the total bank assets not only on the system, but also Separated in some banks, which indicates shortcomings in the performance of bank performance at the end of the period.

From the results presented in Figure 1, we infer that the volume of non-performing loans is increasing during the analyzed period, demonstrating the assertion that there is sufficient support asset that could be used in transactions as SRCs.

In addition to assessing the existence of the support asset, it is necessary to identify the level of financial market preparedness that would allow the implementation of the SRA.

From those mentioned in Table 1 (next page), we find that regulatory loopholes in the Republic of Moldova refer both to the capital market and the banking market. In the banking sector there are more incentives to use credit derivatives such as: the existence of the support asset, of the supervisory body and potential investors.

Currently, we are seeing a less prepared market for FDI issuers and poor infrastructure. Institutions in the financial market are insufficient to organize FDI transactions. Thus, we note that certain elements of a developed capital market are missing, but the initiation of FDI transactions are possible in the banking market, which is more regulated and more prepared for issuers. Thus, as a regulatory body for the Republic of Moldova would appear to the NBM, the role of the secondary market could take over a specially developed segment on the Moldova Stock Exchange, as liquidity providers could be insurance companies or even banks through Bancassurance, as agents could intervene broker agencies, and the role of investors could belong to Romanian economic agents, EU countries, etc.

Table 1. Critical analysis of the existence of conditions for implementation of credit derivatives

Domain researched	Banking market	Capital market	Explanations
Assets	+	-	On the banking market there is the support asset (credit risk). There is no support asset within the capital market. There is no clear definition of the elements of credit derivatives, although support assets are sufficient in the form of credit risk.
Issuers	+	-	Within the banking market, there is sufficient capital and support assets to cover the risk of issuing credit derivatives. There is the shareholders' register, but there are no persons who would take over the role of registrar for credit derivatives.
Infrastructure in transferability	+	Partial	There are channels of credit risk transfer within the banking market. There is no correlation between the banking market and the capital market, which would allow banks to appear as an active participant in the circulation of credit derivatives.
Existing legislation	+	-	The definition of financial derivatives, but not that of credit derivatives, is present in the banking market. Within the capital market there is no regulation of either financial derivatives or credit derivatives.
Surveillance	+	-	There are prudential rules regarding the activity of financial institutions in the banking market. In the case of the capital market there are no prudential limits to be respected, especially in the IFD field.
Investors	+	-	There are investors: legal and institutional persons in the banking market who will be able to obtain FDI, including credit derivatives. The capital market has a lack of investors (banks) that would be involved in credit derivative transactions because there is no clearing house and clearing platform.

Source: elaborated by the author.

Currently, under the influence of innovative processes on the financial market, it is noticed the change in the structure and the nature of the risks faced by the bank. On the credit derivatives market, three forms of regulating the activity of banks can be highlighted:

external control by central banks;

external control by independent organizations;

internal control at all levels of management within the bank.

In the Republic of Moldova, the external control of the NBM and its results are more relevant than that of the independent organizations and thus the two forms of external control can be reduced to one: the NBM control.

External control measures in the case of performing credit derivative transactions by banking institutions should include the following:

control over the effectiveness of internal measures realized by banks;

creating premises to disclose information about operations with financial credit derivatives;

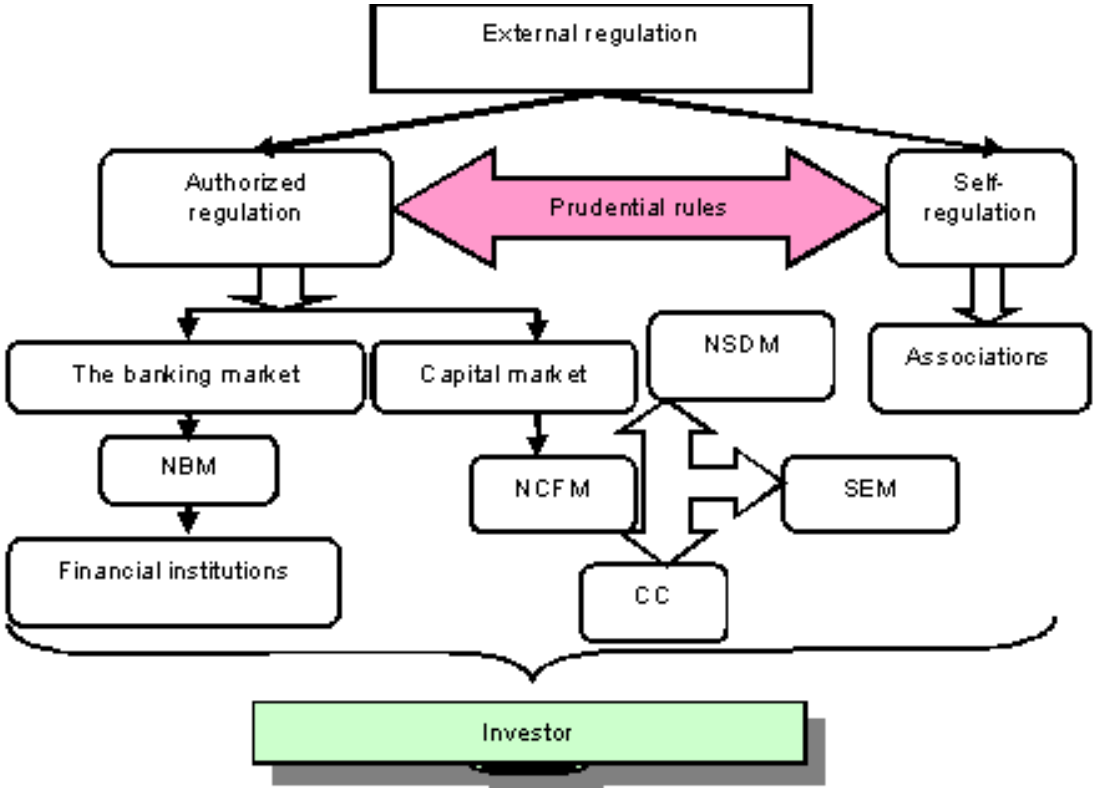
introducing rules for creating reserves to cover bank risks generated by operations with credit derivatives;

establishing prudential rules that take into account the risks associated with transactions in financial credit derivatives.

The actuality of the recommended external control measures will increase with the implementation in the banking sector of the credit derivatives and the creation of favorable conditions for the development of these instruments in the banking sector of the Republic of Moldova.

Under the EU provisions, the legal authority, represented by the National Bank, may enter into transactions in credit derivatives. OCC has admitted that banks may enter into transactions in credit derivatives when the bank can legally buy and sell the underlying instrument or the proprietary product as a dealer or where the bank uses the transaction to cover the risks generated by legally permitted activities. Based on the already existing elements in the banking and capital market sectors, we will recommend the infrastructure in the FD management presented in Figure 2.

Figure 2. Model of FDI management in the Republic of Moldova



Source: elaborate by the author.

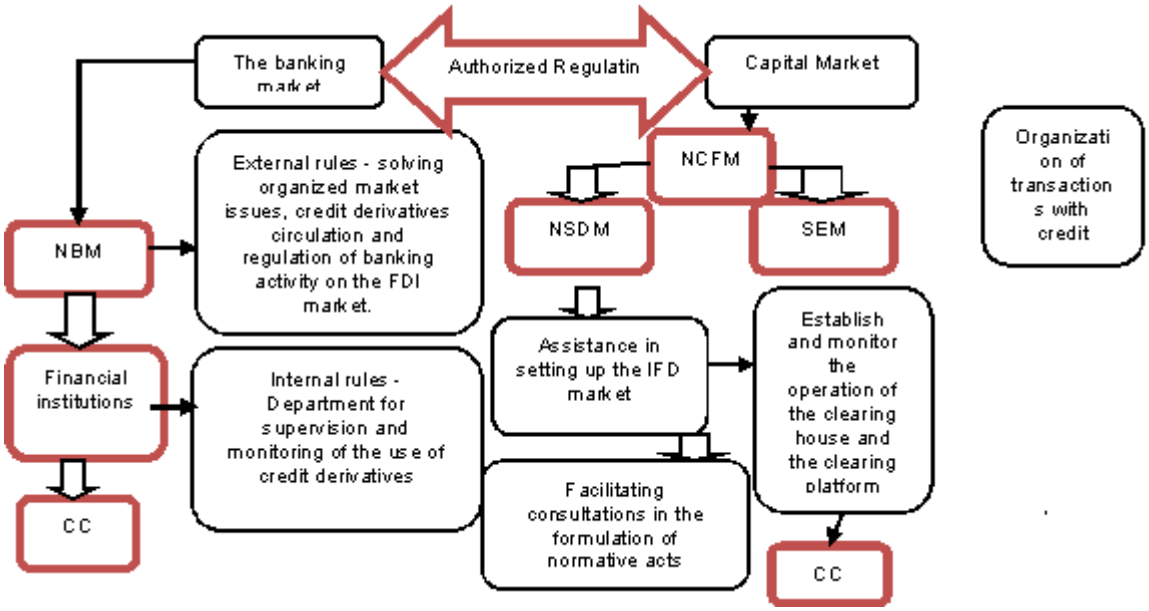
The NBM, as noted in Figure 3, may also enter into SRC transactions as the principal or agent when the bank acts as a financial intermediary for its clients.

Performing control in the case of operations with credit derivatives has the same objectives as in the case of ordinary banking operations, but taking into account the specificities of these instruments, which require more rigorous measures.

Under the current circumstances, when external control only reveals deficiencies in compliance with prudential rules, top managers are confronted with the problem of inefficient management of the bank's activity, which prevents them from becoming aware of the need to initiate the control procedure for various reasons. Under these circumstances, emphasis is placed on the internal control of the bank.

The purpose of creating the internal control system on operations with credit derivatives is to adapt the management process to current requirements that impact on the bank's efficient activity. Thus, the internal control system must correspond to the volume and character of the operations performed and contains adaptation mechanisms which would allow for an adequate level of safety in an unstable environment.

Figure 3. Iterations of authorized regulation of SRC operations in the Republic of Moldova


The banking market
Authorized Regulatin
Capital Market
Organizati on of transaction s with credit
NCFM
NSDM
SEM
NBM
External rules - solving organized market issues, credit derivatives circulation and regulation of banking activity on the FDI market.
Financial institutions
Internal rules - Department for supervision and monitoring of the use of credit derivatives
Assistance in setting up the IFD market
Establish and monitor the operation of the clearing house and the clearing platform
Facilitating consultations in the formulation of normative acts
CC
CC

Source: elaborated by the author.

At the same time, for a more rigorous monitoring of operations with credit derivatives it is necessary to have the following components within the internal control system:

the position of the management and the control environment at the financial institution level;

identifying and assessing the risks generated by credit derivatives;

information flows on the nominal value of credit derivatives;

monitoring credit derivatives and removing shortcomings from their use.

Internal measures must be directed towards the following standards:

performing a permanent control of the board of directors on performing operations with credit derivatives;

clear determination of the purposes and tasks of the FDI market of credit derivatives and their reflection in action strategies;

performing all operations with credit derivatives based on appropriate regulations;

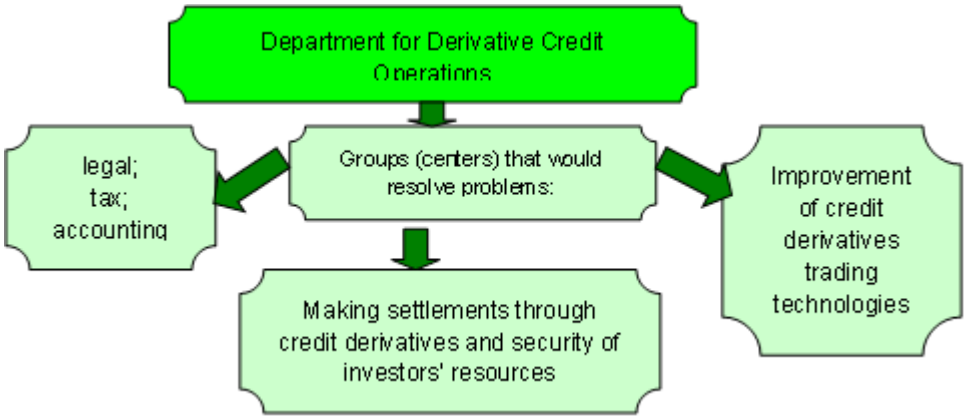
creation of the management system, whose functions includes the elaboration of methods for calculating the risk generated by the credit derivatives;

setting prudential rules for the risk of credit derivatives and monitoring compliance with the limits of this risk;

organize an effective internal control system on credit derivatives.

Successful FDI transactions require the creation of a department within the banks responsible for the operations of credit derivatives only. Within the department, groups or centers of responsibility could be created, as seen in Figure 4.

Figure 4. Department structure for IFD operations


Department for Derivative Credit Operations
legal; tax; accounting
Groups (centers) that would resolve problems:
Improvement of credit derivatives trading technologies
Making settlements through credit derivatives and security of investors' resources

Source: elaborated by the author.

The Department's objectives for operations with credit derivatives are as follows:

-elaboration of projects and recommendations aimed at improving the way of conducting transactions with credit financial derivatives;

-elaboration and evaluation of draft normative acts, documents and recommendations for improvement of settlements for transactions with financial credit derivatives;

-elaborating and analyzing recommendations on the optimization of taxation of transactions with financial credit derivatives;

-studying other issues related to transactions in financial credit derivatives.

Improving the internal control system within the financial institutions on the BASEL Committee's position is based on a set of criteria that will allow for the assessment of the effectiveness of the control procedure. Internal control is effective if:

-account is taken of the ongoing assessment of risks arising from credit derivatives and related to the activity of the financial institution;

-the risk assessment methods determined by the financial derivatives are periodically reviewed and supplemented by new ones and allow for a more accurate assessment of not only the known risks but also those that are controllable;

-control activity is a component of the daily activity of the bank (assuming the elaboration of the regulations and procedures for conducting the operations, the control over their execution at all levels);

-managing decision-making is based on sufficient internal and external information on all credit events and can influence decision-making, taking into account the fact that the information needs to be truthful, current, accessible and presented in the established manner.

At national level, more rigorous control over market participants can be achieved by creating new relationship systems where protection vendors will be subject to the same requirements as banks, as they will also take credit risks.

Action on other participants in the credit derivatives market and more rigorous control over their activity can be achieved by:

-creating a regulator for the activity of market participants;

-assigning additional supervisory functions to non-banking supervisors;

-extending some normative provisions in the field of regulation of banking activity to other participants of the credit derivatives market.

In our opinion, the best form of control would be internal control over banks' performance of credit derivative transactions.

In addition to the recommended internal control measures, there is a rising need to introduce changes in the assessment and management of credit risk generated by credit derivatives.

Improving credit risk assessment conditions involves making changes within the infrastructure. The key element of the infrastructure changes is the elaboration and implementation of normative acts. Broadly speaking, legal acts regulating credit derivative transactions can be divided into two groups:

-international normative acts;

-national normative acts.

The modernization of the normative base at international level requires changes in the official documents of ISDA and BIS, and more detailed regulation of credit risk assessment, applied methods, stakeholder responsibility and minimum requirements for the capital of participants in transactions.

Qualitative changes to credit derivatives risk assessment conditions can be made by creating a centralized transmission system for these risks. Creating this structure can be done by:

-ensuring a coherent legislative framework that would provide the possibility to carry out transactions with credit derivatives;

-the creation of a centralized clearing system for the settlement of credit derivative transactions.

The directions for improving the credit risk assessment methods and methods of credit derivatives consist of:

-improving the numerical methods of credit risk assessment;

-improving the conditions for credit risk assessment.

In numerical methods we can propose:

-the refusal to idealize the normalized normal distribution within the limits of the evaluation model;

-switching to statistical data-based methods;

-adaptation within the complex assessment methods based on the rating of the BASEL Committee on Prudential Supervision;

-review existing credit rating assignment methods.

With regard to improving the conditions for credit risk assessment, the following can be recommended:

-adoption and implementation of the normative regulation of the transactions with credit derivatives;

-increasing the control of the activity of market participants, including insurance companies, pension funds and hedging;

-the allocation of additional functions to the Financial Stability Committee;

-introducing limits on the carrying out of insurance and investment operations by banks;

-setting up the financial risk transmission control system.

The recommended measures can normalize the situation on the global derivatives market. These recommendations are needed for implementation in developed countries. For developing countries to which the Republic of Moldova also refers, the problem of the lack of regulation of credit derivatives operations and the creation of optimum conditions for market formation is acute.

In our opinion, the problems that arise during the implementation of SRC in the Republic of Moldova's banking market are:

-poor knowledge of the benefits and risks of these derivative securities, which could lead to fear of buying;

-the low capacity of banks as issuers of FDI due to the need for specialized workers in this field;

-lack of normative acts that would clearly explain and regulate the issuance and trading mechanism of the SRC;

-the unwillingness of partners to ensure the issuance and trading of the SRC, namely insurance companies that would provide the risk and brokers that would provide liquidity.

These issues arise from the unconsciousness of banks as issuers, investors as buyers and intermediaries that could be due to the lack of regulation of the process and of the confidence that this regulation provides. Therefore, in order to solve the stated problems a set of measures must be adopted, which can be divided into several groups:

-development of the legal basis for regulating operations with credit derivatives;

-creating new methods and reviewing existing bank risk assessment methods;

-creating the system of requirements for participants in the credit derivatives market and the mechanism for control over their execution;

-setting up a credit risk control system and integrating this system into global infrastructure.

An important step in the development of the national credit derivatives market is the development of quality legislation in line with EU law. Also, there is a need to elaborate and adopt not only the IFD law, but also the regulation on transactions with credit derivatives. At the same time, it is necessary to review the normative acts referring to:

-the Financial Institutions Act which introduces in article 26 the notion of credit derivatives transactions, which may condition what types of banks may trade IFDs according to the volume of the CNT (as in Russia) or depending on other criteria. Thus, in this normative act one might differentiate which banks can trade credit derivatives and which cannot by issuing licenses depending on the amount of capital needed to assimilate the risk;

-the stock exchange law by creating a stock market on which FDs can be traded for a particular purpose and structure;

-the securities market law by identifying the specific notions and introducing them into legislation and reviewing the functioning of the National Commission for the Financial Market.

The strong point of the changes is to regulate transactions in credit derivatives and create an efficient credit risk transfer system. It should provide for the following:

-the list of participants (candidates) who can enter into transactions with credit derivatives and their obligations;

-the list of contracts through which credit risk can be transferred;

-the list of core bonds whose credit risk may be the subject of a transmission;

-the rules for the execution of transactions with credit derivatives;

-requirements for direct and indirect participants in credit derivative transactions.

A more difficult issue would be the correct assessment of the indicators describing operations with credit derivatives. As quantitative indicators, in our opinion, could serve:

-the amount of assets issued;

-the amount of risk that can be taken over;

-the quantity of derivatives by type of issuer or by type of investor.

As qualitative indicators we could propose:

-the ratio between the amount of non-performing loans and the SRC, and a quantitative regulation could be proposed - the SRC part cannot exceed 30% of the volume of non-performing loans;

-the ratio between the total assets and the SRC should evolve in the same way as the ratio between the amount of non-performing loans and the SRC;

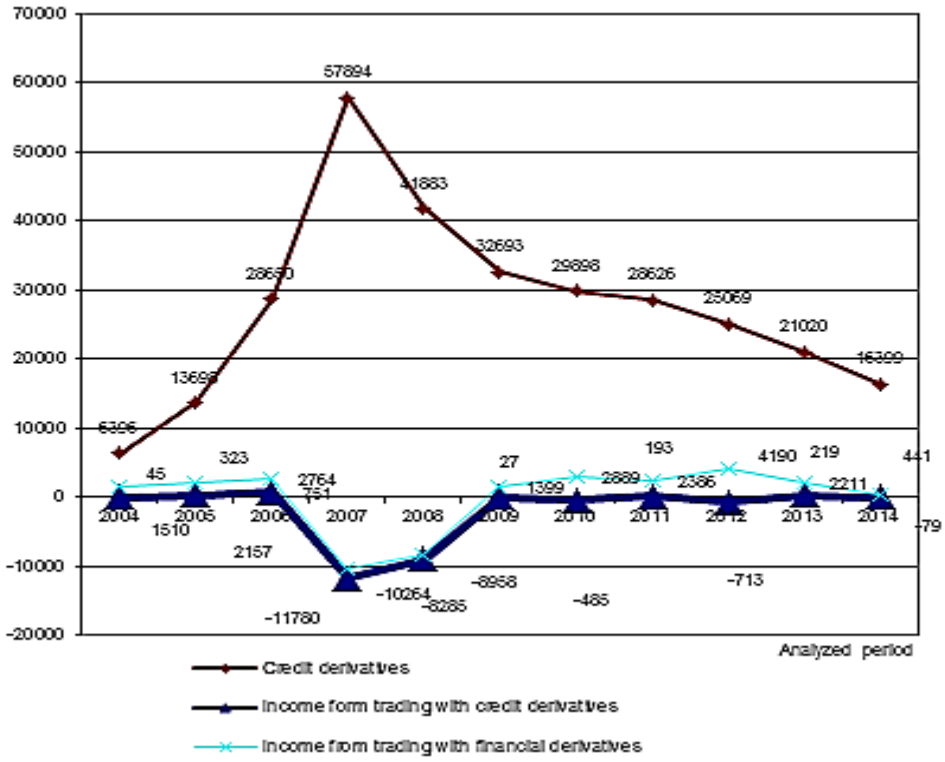
-the ratio between SRC and CNT.

At the same time, the recommendations made are to be seen in the system and pursued until the realization, for example, Georgia has joined the IFD issue and regulation association, but has not developed any IFD, which demonstrates once again that it is necessary to carry out not only the recommended transformations but also the pursuit of application.

The problem of determining the complete list of quantitative indicators sufficient for the economic argumentation of the future development prognosis of the implementation of credit derivatives as well as the calculation of the optimum sizes of these parameters according to the state of the economy is quite difficult, it requires a more complex approach and goes beyond the scope of this research and may be the subject of further investigations.

A clear and important question is about the optimal size of the credit derivatives market. Depending on how much more, the better it is, "both for the volume of open positions and for other indicators, is good only to a certain limit, after which the countdown begins:" the more, it is, the worse it is", as demonstrated by the data in Figure 5.

Figure 5. Dynamics of income from transactions with credit derivatives and their amount at international level, billion USD



Source: elaborated by the author according to http://www.occ.gov/topics/capital-markets/financial-markets/trading/derivatives/ dq403.pdf - dq114.pdf

From Figure 5, we note that the volume of credit derivatives versus the evolution of income from these financial instruments is a special one, because during the period of increase of the credit derivatives balance, years of 2004-2007, the revenues from these IFDs increase only in the period 2004-2006, and in the year of 2007 we can mention a negative value, causing losses for the banking system. The same situation is also characteristic for the years of 2008, 2010 and 2012 when are registered losses from credit derivatives transactions, in the amount of 8958 billion, 413 billion and 713 billion of USD respectively. Revenues from credit derivative transactions show an identical trend to income from financial derivatives during the period of 2004-2009, as credit derivatives are also financial derivatives. For the rest of the year, the situation is appreciated as more stable, as the values of credit derivative income are modest and explained by the reduction in the volume of world-traded credit derivatives.

With the increase in the volume of credit derivatives, the ability to assimilate the risks generated by IFD is lower and, in the absence of control and regulation, they can generate major losses and even financial collapse.

3. Conclusion

The rationale for regulating the IFD market and credit derivatives in the Republic of Moldova should start from the following:

- a clear definition of the category machine with reference to the types of IFD, the categories of contracts allowed, according to the contractual purposes and the modalities of execution;

- classification of market participants, determination of categories of professional activities and principles of market infrastructure construction, limits on speculative operations, differentiation between the conclusion of contracts on the IFD market, including credit derivatives and insurance business;

- the obligation of the market participants to create the internal control system, the system for monitoring and management of the risk caused by the credit derivatives, the assignment of the responsibilities and the management of the economic agents to launch on the IFD market, the prohibition to perform the operations from the moment of bankruptcy declaration;

- the underlying principles of the state regulatory system for the IFD market and credit derivatives, the decentralization of the limits of the competencies of the responsible bodies and the order of the procedures for cooperation between them.

In addition to the above, the program for the implementation of credit derivatives requires disclosure of the defining elements, goals and objectives of the market operation, the possibilities of performing operations with the financial derivatives, as well as the risks related to these operations.

Credit financial derivatives are instruments of competitive struggle, which offer the possibility to modify the functional dependence of the financial result profile of the activity on the market conjuncture in accordance with the preferences of the bank owners' management. Namely they must make decisions about the use of credit derivatives.

The economic role and advantages of transactions with credit derivatives in Moldova's EU aspirations are relevant also because they represent an efficient market economy mechanism and their efficient functioning is the basis for stable economic growth in the context of the changes taking place in the world financial architecture.

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CONTEMPORARY TENDENCIES OF BANKING GLOBALIZATION

Alexandra TVIRCUN[38]

Abstract

Banking globalization is a specific form of financial globalization. It is manifested through the following: performing global banking operations, concentration of banking capital, expanding activity of transnational banks and emergence of global banks, standardization of national banking systems, emergence of single banking model, substantially change nature and forms of competition in financial markets, reorientation of banking business from traditional to innovative, development of outsourcing of certain functions and operations of global banks. Banking globalization has a number of positive aspects: increasing market efficiency and expanding competitive banking environment; formation of a universal banking culture; fundamental changing of global banking system functioning and altering the quality of banking activity. At the same time, banking globalization has also negative aspects: development of offshore banking has contributed to creation of an international infrastructure to serve shadowy financial flows, to launder money and to carry out the hostile acquisitions of banks. Banking globalization has also led to unjustified stimulation of global lending and the international distribution of risks, thus becoming a financial instability factor. The conducted study allowed to outline the essence of banking globalization and main channels of influence on banking system of Republic of Moldova: banking regulation, participation in the capital of domestic banks, diffusion of innovations in banking products market and participation in international financial flows. This impact, on the one hand, has beneficial effects on the implementation of modern banking technologies. However, on the other hand, it generates a complex of problems. The research has shown the contribution of banking globalization to the emergence of recent banking crisis in Republic of Moldova. All this requires reviewing prospects of domestic banking system developing and banking regulatory process continuously improving.

Keywords: *bank, banking globalization, transnational banks*

JEL classification: *F36, F65, G15, G21*

Introduction

By virtue of market dominance, banks become main participants in the process of financial globalization. They exert an active influence on financial markets, stimulate their integration and modernization while simultaneously changing themselves.

Many researchers point to the fact that current trends in the globalization of the economy contribute to transforming the role of the bank into the economic system, becoming the important financial intermediary that provides all the participants of international economic activity with the necessary financial resources. As a result, banks not only carry out international financial activity as autonomous institutions but also contribute to the international business of other economic entities.

The transformation of global banking system takes place under the influence of a complex economic, socio-economic, political and geopolitical problem, which differs by degree of mutual influence, combining and confronting vectors of evolution. The controls on this system, are required to adapt to these processes and elsewhere to change them in their interests, but these processes can only be influenced by countries with a high potential and obvious competitive advantages.

Inevitably, financial globalization exerts an increased influence on the functioning of banking system in Republic of Moldova, which implies the need to study this impact.

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Description of the problem

Banking globalization is the stage where banking services have spread worldwide, becoming universal. (Savu, 2006)

It is a separate direction of economic globalization. As result of banking globalization change the nature and forms of competition on financial market. Banks are forced to compete simultaneously on many financial market segments, not only with each other but also with other financial institutions: insurance companies, investment funds, non-state pension funds and other financial companies. (Davlatov, 2015)

At the same time, banking globalization represents the highest degree of international banking development, which is reflected in the implementation of commercial banks transactions with foreign counterparts and on global financial markets. International banking business has developed along with development of world trade, international business of non-financial institutions.

Authors Ştahovschi and Butulescu (2010) said: „Globalization of banking activity appears as a natural consequence of multiple transformations carried out in the processes of production, movement of goods and services on a global scale. On the other hand, given the vital role of assuring and distributing financial resources in all development processes, globalization of banking activity is said to be a promoter and a supporter of globalization in all compartments and sectors of economic life."

According to Ivanov (2018), banking globalization has developed in the following stages:

- In 1960-1970s. banks have begun to form a foreign network necessary to service activities of their multinational customers. Foreign branches changed the orientation and priorities of activity. The passive and indirect influence of banks on globalization, characteristic of first stages of development of this process, has been replaced by an active one. Along with serving international trade and following their customers, banks have included local companies and the public in the sphere of their interests.
- In 1970-1980s. the largest banks have moved to direct participation in globalization. This transition was accompanied by the emergence of a global financial market headed by leading US banks. Therefore, at the first stage, banking globalization was practically reduced to Americanization of financial market - leading financial banks were determined by leading Wall Street banks. As the financial positions of London were restored in the process of globalization, British banks entered. Then European financial markets appeared and leading European banks shifted to global operations. As Japanese financial capital grew rapidly, its banks also became involved in the globalization process.
- A significant acceleration of banking globalization has been observed over the past quarter century. At this time, the emergence of new market economies and emergence of new global financial centers, as well as the rapid development of offshore financial zones occured. The mastering of these processes took up not only already established global banks. In the wake of accelerated accumulation of capital in this area, the nouveau riches appeared who quickly gained financial strength and occupied key positions in global banking network. Nevertheless, new banks have not yet mastered all levers of global development and most often were content with subordinate roles and occupied second positions in the global banking empire.

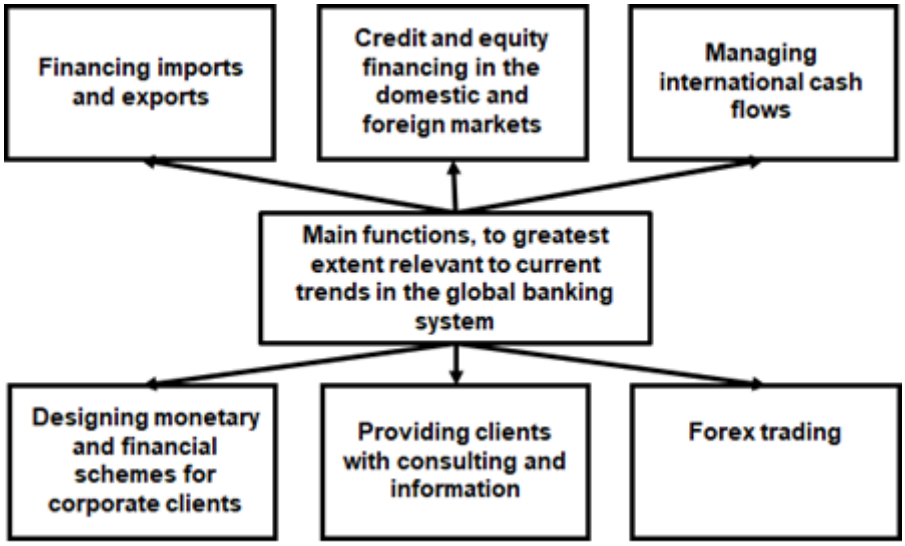
Also, in Ivanov's opinion, the leading actor of banking globalization has become tglobal bank is a bank with a worldwide business or a bank that is active in international markets and has a presence on several continents. Global banks offer a platform for global access to management of accounts, assets, liquidity and risk. It uses funds received in foreign markets to finance its claims to borrowers in the same or other foreign markets

At the same time, transnational and international banks remain important. Transnational bank is a large financial institution with a wide network of overseas offices, branches and offices. International bank uses funds received in domestic market to finance its claims to borrowers

in the foreign market. Along with these financial institutions, World Bank and the International Monetary Fund, as well as various other intergovernmental credit and clearing institutions, play an important role in banking globalization. They are involved in shaping the overall favorable climate for international banking.

Researcher Shestopalova (2013) introduced main functions to greatest extent relevant to current trends in the global banking system (Figure 1).

Figure 1. Main functions to greatest extent relevant to current trends in the global banking system


Financing imports and exports
Credit and equity financing in the domestic and foreign markets
Managing international cash flows
Main functions, to greatest extent relevant to current trends in the global banking system
Designing monetary and financial schemes for corporate clients
Providing clients with consulting and information
Forex trading

Source: (Shestopalova, 2013)

Shestopalova also points out that international financial integration in modern conditions poses many problems for banking institutions:

- It is quite difficult for investors to obtain reliable data on activities in the global capital market.
- Integration processes in capital markets led to simplify the procedure for capital flow. So, governing links in the banking sector is quite difficult to predict in a timely manner or identify destabilizing flows of funds for the purpose of formulating adequate strategy for further development.
- Market integration can increase the vulnerability of monetary and financial market and, therefore, complicate the problem of control over its activities.

According to some economists, banking globalization determines the transformation of banking business as follows (Samarina, 2011), (Vlezkova, 2012), (Davlatov, 2015), (Gabbasova, Mirzagaleamov, 2015), (Zaitsev, 2010):

- *Performing global banking operations*, which imply the presence of powerful financial institutions in different world markets, as well as their knowledge of the economic situation, financial services industry, state of economy sectors and cultural characteristics in each particular country of a particular region. This is necessary in order for global banks to be able to provide a full range of financial products and services that are most suitable for a particular financial market, as well as to offer innovative banking solutions for both local and cross-border customer needs, which are often large transnational companies.
- *Increasing influence of growing expansion of corporations* on national monetary policy (ie. central bank activity) has, banks and other financial institutions in global capital markets, including in direct investments sector.
- National banking systems, which are designed to accumulate and redistribute financial resources within national economic system, are *in ever-increasing dependence on international capital markets*, which in era of globalization has become an independent factor in development of world economy.
- Development of a network of transnational corporations and their affiliates around the world has led to increase in their need for adequate banking services and provoked *emergence of new non-traditional banking services*.
- Non-financial sector of economy, financial and banking systems of national economic systems are becoming more standardized at work in domestic and global markets. This leads to convergence of regulating rules of internal and external economic transactions. Process of financial globalization and formation of global banking industry promote the *standardization of national banking systems* and emergence of *single, dominant banking model*. It can also be about *standardization of banking supervision*.

- *Concentration of capital*, including the merging of insurance and banking capital, lead to formation of transnational financial corporations, which capital is spreading beyond national economies, size of assets of corporations is comparable with budgets of entire countries.
- It takes place *banking management objectives adaptation*. The main of which consists in to enhance market capitalization of the bank as a company. The increase of market value of bank and increase of capitalization of banking industry in general ensure compliance with their banking socially significant features that contributes to economic growth.
- *International portfolio investments is growing* which enhance active banking operations.
- Globalization is accompanied by *deregulation of banking business* and the *liberalization of financial markets*. This erases the institutional distinction between different types of banking and financial activities (commercial, investment, insurance, and others). Liberalization, on one hand, creates conditions for development of an overseas branch network of banks and formation of international banking business, which naturally increases the competition, but on other hand, at the same time activates consolidation of bank capital. This leads to increase of mergers and acquisitions number in banking sector, to expand and increase the diversity of banking cooperation between themselves and non-bank financial institutions, growth of bank alliances of all kinds.
- *Substantially change nature and forms of competition in financial markets*. Banks are forced to compete simultaneously in many financial market segments, not only with each other but also with other financial institutions (insurance and investment funds, finance companies, etc.) and in liberalized environment - not only with residents but also with non-residents.
- Banking, globalization is associated with the *reorientation of banking business from traditional to innovative*, reducing the share of traditional banking operations in favour of increase of new, qualitatively meeting of customers needs changing. Improvement of banking products and services, channels of their promotion on modern information and communication technologies, carrying out to achieve adequate compliance of banking business to changing customer demands.
- *Offering new and expanding streamlined channels for delivering banking products and services to customers*, this mainly being due to e-banking, which has significantly expanded the scope of consumer coverage with financial services, primarily limited to operations of traditional bank branches. This channel is today critically important for both retail and wholesale banking in sectors of cash circulation, capital markets, securities and international trade. The growth of electronic banking is directly related to advent of advanced communication technologies and computer platforms.
- *Development of outsourcing of certain functions and operations of global banks* wanting to reduce costs, replace fixed (fixed) costs with variables, and focus all attention on the core business. There are several areas in which global banks outsource their functions and operations. Firstly, the geographical factor plays an important role, when banks transfer some of their functions to the outsourcing companies representing cheap labor countries. Some data centers here serve one client, i.e. one global bank, others - several clients at the same time. Most popular nowadays as territories for business process outsourcing of global banks.
- Of great importance is the *further improvement of integrated risk management* as a way to determine, evaluate and control the effect of all internal and external factors, the change of which may adversely affect the value of a portfolio or a bank as a whole.

These transformations were determined by the following factors (Vlezkova, 2012):

- Increasing dependence of national banking systems on international capital market;
- Strengthening competition on global financial market between both banks and banks with other financial institutions;
- Increasing opening of national economy;
- Standardization of banking supervision;
- Development of information and communication technologies.

Ştahovschi and Butulescu (2010) noted that, „...two-thirds of surveyed multinational firms chose a bank with headquarters in the host country, and less than 20% of them chose a bank in their home country. Branches of multinational companies prefer to use services of a bank that knows local market, culture, local language and regulations, rather than banks that are familiar with market conditions of home country. This suggests that expansion of globalization will remain limited. However, in countries with low financial development (such as former socialist countries),

multinationals prefer to work with banks in their home countries or with global banks rather than with local banks".

Methodology and data sources

The research was conducted on the basis of examining opinions of various specialists in the field of banking globalization as well as reports of institutions authorized in the banking sphere of Republic of Moldova. As a result, certain assumptions have been made on the existence of channels for banking system integrating with international one under the influence of banking globalization processes. These assumptions have been confirmed by examination of analytical materials.

Results obtained

As a result of the researches carried out, main channels of integrating the banking system from the Republic of Moldova with the international one were determined:

- Implementation of banking standards;
- Innovation process promoting;
- Significant foreign investments in capital of banks in Republic of Moldova;
- Attracting banking system from Republic of Moldova in shadow activities of banking globalization.

Implementation of banking standards

Financial globalization has led to unification of standards and methodologies for organization of banking activity, which in turn are also applied in Republic of Moldova.

In 1992, Republic of Moldova became a member of International Monetary Fund and of International Bank for Reconstruction and Development, which contributed to beginning of establishment of banking regulatory and banking system based on international standards.

In 1995, Law on National Bank of Moldova and Law on Financial Institutions was approved, which at that time was largely an attempt to implement international best practices in banking. As a continuation of this process, in 2017 came into force Law on activity of banks, which aims to strengthen the banking regulatory and supervisory framework by aligning itself with European standards.

The basis for international banking is standards and methodologies for banking regulation that are accepted by a large number of countries, which are developed by Basel Committee on Banking Supervision of Bank for International Settlements. In this context, Basel Accord on capital adequacy is highlighted.

The banking regulatory system in Republic of Moldova is based on international standards. Firstly, it refers to activity of National Bank of Moldova (NBM), which is responsible for licensing, supervision and regulation of commercial banks' activity.

Implementation of Basel I provisions started in 1998. In 2004 the Basel II was approved, which created additional opportunities for improving banking supervision system in Republic of Moldova. And in 2017 NBM proved Basel III Implementation Strategy in the light of European legislative framework.

Based on international standards and legislation in force, NBM promotes banking regulatory and banking policy through:

- Establishment of bank authorization criteria, capital requirements, exigencies to owners and their shares;
- Establishing requirements for commercial bank administrators;
- Establishing requirements for quality and functionality of banks' internal control systems;
- Establishing and supervising compliance by commercial banks with prudential requirements;
- Undertaking actions related to application of corrective measures, sanctions, establishment of special supervision or, as the case may be, special administration for solving problems with banks with increased vulnerabilities.

It is also important the endorsement in 2006 of Recommendations on country risk management and transfer system by banks in Republic of Moldova, which had as object the management of two categories of risks:

- Country risk expressed by possibility of a negative impact of economic, social and political conditions and events in country on the activity of bank;

- Transfer risk related to impossibility for a foreign entity to convert financial bonds into currency required for payment due to lack or unavailability of this currency as a result of restrictions imposed by that country.

Innovation process promoting

Much of new banking products have been implemented in Republic of Moldova by way of diffusion, ie the supply of these products after testing their effciency on financial markets of other countries and on international market.

This process takes place in two ways. The first is related to coverage of new products under national law to ensure not only their functionality but also security for both customers and banking institutions themselves. The second is through the application of new banking technologies within commercial banks. The most eloquent example in this respect is innovations within Moldovan payment system. Since 2002, central authorities have begun actively promoting the use of non-cash payment instruments. Also, the Strategy for development of national payment system of Republic of Moldova, which determined the current configuration of Moldovan payment system, was approved.

New regulations have been approved, in particular, was defined instruments and payment documents used to make cashless payments on the territory of Republic of Moldova:

- Credit transfer - a payment instrument used to make a wide range of payments initiated by individuals and businesses. It is worth mentioning that in international practice this is the most widespread non-cash payment instrument.
- Direct debit is used to collect payments due by consumers to suppliers of goods and services.
- Incontestably perception is payment instrument, through which the law-mandated bodies initiate forced collection of money from bank accounts. Related stipulations have elucidated certain aspects related to work of concerned bodies.

In Republic of Moldova the development of remote banking services was possible according to type of used application by the holder and means of communication: ATM-banking, POS systems, Internet-banking, PC-banking, mobile-banking , telephone-banking, SMS-banking.

Since 2013, The Law on Payment Services and Electronic Money has been enforced, harmonized with EU law.

At present, Moldovan commercial banks issue and serve payment cards only within international payment systems. Their use is gradually increasing each year, being supported by Internet-based banking solutions and development of necessary infrastructure. It is remarkable in this respect the development of self-service systems within commercial banks.

It is also important to increase the supply of auxiliary services.

Of great importance was the provision of services related to international systems, such as PayPal.

Commercial banks in Republic of Moldova increasingly use the packaging of offered services in complex banking products.

Based on international experience, since 2003, Deposit Guarantee Scheme has started to function and activity of Deposit Guarantee Fund in banking system was launched. Level of deposit guarantee ceiling (the maximum amount payable to a depositor) was originally set at MDL 4500, and then in 2010 – MDL 6000, irrespective of number and size of deposits or currency in which they constituted in bank. In March 2017 the sum of ceiling was increased to MDL 20000. However, in some experts' opinion, this system is still a little efficient. (For comparison, EU rules provide for guarantee schemes of EUR 100,000 per depositor.) Since the implementation of official bank deposit guarantee scheme in Republic of Moldova, five banks have been liquidated, but no payment has been made from the fund.

The activity of Credit Bureau started in 2008, which was an important moment for organizing information exchange between commercial banks, microfinance organizations, leasing companies, savings and loan associations, in order to provide information aimed at describing the situation regarding compliance to borrowers of their obligations under credit agreements, monitoring and identifying credit risk, including fraud, as well as other information required for credit.

Offerings of deposits and loans at present can be considered classical rather than innovative, with only some hybridization and combination attempts being made in complex banking products.

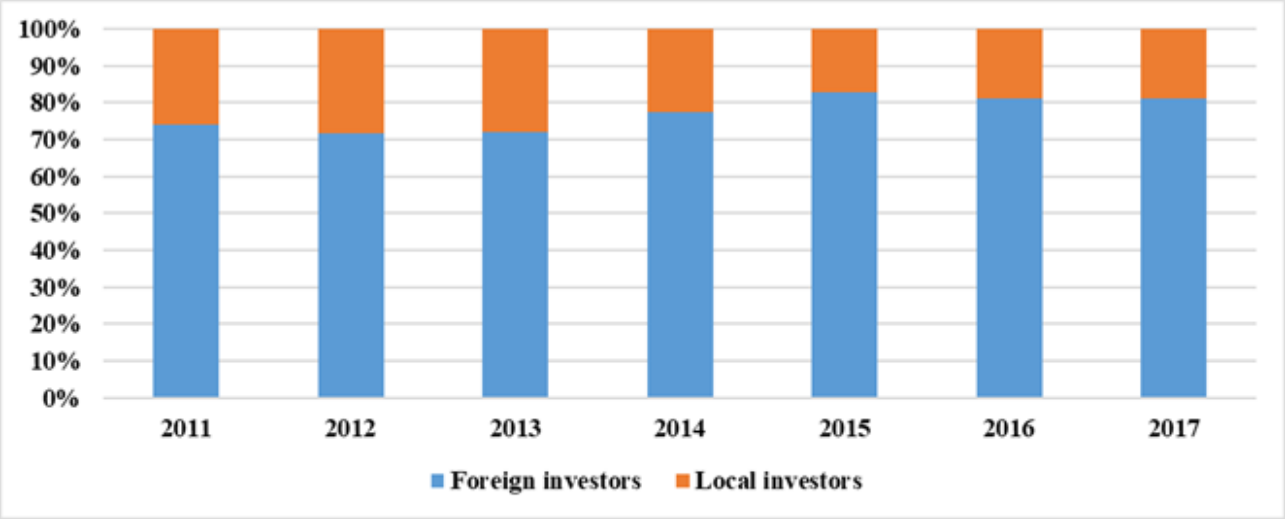
At the same time, the process of technology transfer in banking industry is not a mechanical and simple one. So far, there are many issues, which are partly related to specific corporate culture within banks and financial culture of clients.

Some innovations are very difficult to develop (for example, premium banking services, bancassurance services). Other products spread in Western practice have not been implemented in Republic of Moldova. For example, classical fiduciary services, investment and multivalued bank deposits as well as metal bank accounts can be used. Up to now, there is no known case of granting domestic consortium credit by domestic banks.

Significant foreign investments in banking capital in Republic of Moldova

The main way of integrating national banking system into the world is through foreign direct investment. During 2011-2017 the significant share of foreign investments in the capital of banks in Republic of Moldova was maintained (Figure 1).

Figure 2. Dynamics of structural changes in share capital of banking sector in Republic of Moldova according to source of investments



Source: Annual reports of National Bank of Moldova for years 2011-2016

During the analyzed period it had the general trend of growth, the minimum being in 2012 (71.7%) and the maximum level - in 2015 (82.9%).

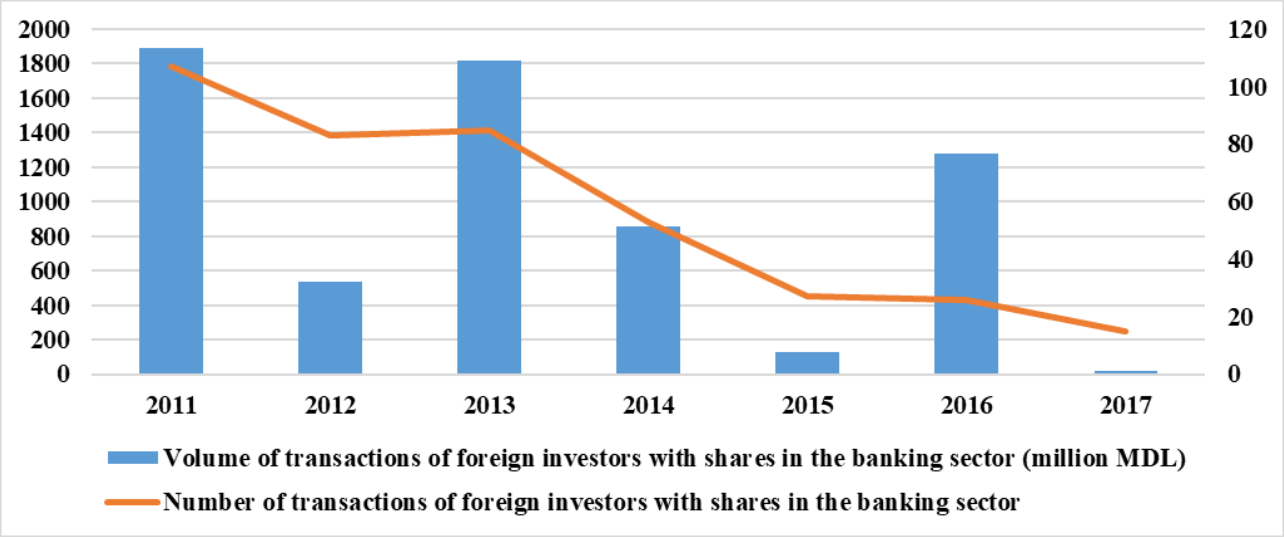
As of December 31, 2016, the level of indicator was 81.0%, decreasing by 1.9 percentage points as compared to the end of 2015, following the cancellation by Moldova-Agroindbank on July 1, 2016 of 389760 nominative ordinary shares with a nominal value of MDL 200 / share and FinComBank's partial redemption of its own shares (MDL 10.1 million) from Western Nis Enterprise Fund (USA). Among foreign investors participating in the formation of capital of banks of Republic of Moldova are: European Bank for Reconstruction and Development, banks from Italy, France, Romania, as well as corporate investors from Germany, Austria, UK, Ukraine, Cyprus, Russia, USA, Netherlands, Liechtenstein, Switzerland, Czech Republic.

As of December 31, 2017, the share of foreign investments in banks' capital remained practically at the same level.

Of total number of banks, four banks have full foreign investment capital (including 2 branches of foreign banks: Eximbank and BCR Chisinau) and 7 banks - capital made up of foreign and domestic investments.

The activity of foreign investors with shares of banks was unstable (Figure 2).

Figure 3. Dynamics of banks' foreign investors' transactions with banks' shares



Source: *Annual reports on activity of National Commission for Financial Markets and functioning of non-banking financial market for years 2011-2017*

The number of transactions of foreign investors with shares of domestic commercial banks tended to decrease - from 107 in 2011 to 15 in 2017. However, their volume varied between MDL 1890.8 million in 2011 and MDL 20.5 million in 2017.

In 2017 negotiations were started for the acquisition of package of shares issued by Victoriabank. On January 16, 2018 Banca Transilvania together with European Bank for Reconstruction and Development acquired 39.2% of shares in Victoriabank.

In June 2018, NBM approved the acquisition by an international consortium of investors of 41.09% stake in share capital of Moldova-Agroindbank through an investment company specially created for this purpose - Heim Partners Ltd., registered in UK based in London.

Attracting banking system from Republic of Moldova in shadow activities of banking globalization

Banking globalization, besides beneficial aspects, also has some negative ones. First of all, it is the issue of money laundering, as well as the danger of getting national banking system into shadowy international financial schemes. In 2007, banking regulation on prevention and combating of money laundering and terrorism financing was approved. And in 2011, recommendations on banks risk-based approach to clients oriented towards risk prevention and combating money laundering and terrorist financing were approved. But contrary to formal measures taken by authorities, domestic banking system is increasingly drawn to national and international money laundering, most famous of which is Laundromat. Secondly, it is attempts to illegally seize banks' shares in Republic of Moldova by conducting raider attacks. Thirdly, it has now become evident that the plunder of three native banks (Savings Bank, Social Bank and Unibank) would have been impossible without the use of global infrastructure provided by offshore financial centers. Fourthly, international collaboration of domestic commercial banks with banking institutions in other countries linked to international investment has caused over the past decade additional problems related to unjustified assumption of excessive risks.

Thus, banking globalization has become a fundamental factor in triggering financial crisis in Republic of Moldova in 2014-2015, which was manifested by acute shortage of bank liquidity related to bankruptcy of said banks and collapse of exchange rate of national currency in foreign exchange market.

Conclusions

Banking globalization contributes to the spread of banking services throughout the world, banking activity becoming universal one. It can be considered an important factor in the development of banking system in Republic of Moldova, its integration into world banking system. On the one hand, it impose the improvement of banking regulation and supervision. On the other hand, it contributes to the spread of new banking products in domestic banking market. Also, the process of integrating the domestic banking system into the world is remarkable. But at the same time, banking globalization is a source of financial problems, becoming a risk factor. This implies the need to deepen collaboration of national banking supervisors with international financial institutions and banking supervisors in other countries.

Future Directions to Be Approached

The continuation of studies will be to follow the further evolution of international banking regulations and their implementation in the Republic of Moldova. It is also interesting to continue the innovation process on the Moldovan banking market..

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DIFFUSE ECONOMIC MANIPULATION, ASIMETRIC CRISIS, RENAISSANCE OF COMMUNITY-GLOBAL VALUES

Narcis ZĂRNESCU[39]

Abstract

The financial market responds to a wide variety of regulations that should ensure good functioning. But there is always a gray or black area, an underground, a psychological underground, backed up by subtle and sophisticated techniques, which endangers investor confidence and, worse, regional or global financial equilibrium. Our study evaluates several Market Manipulation mechanisms, through a conceptual instrument called Diffuse Economic Manipulation, and propose a fundamental, effective Solution only on medium and long cycle times; a solution that would ensure the sustainable relative Development globally of the Market, Stock Exchanges, and Financial System: Responsibility and engagement through awareness of community-global values.

Key words: manipulation, stock exchanges, financial system

1. Criza financiară, care a izbucnit în 2007, a evidențiat importanţa *încrederii interparteneriale* pentru sistemul global, dar și fragilitatea lui. Pe de altă parte, operațiunile de tip IT, prin care se manipulează integritatea datelor, au intrat, de multă vreme, în atenţia analiştilor şi strategilor financiari, ca generator distinct de mari riscuri sistemice[40].

1.1. În acest sens, dinamica, dată de caracterul complex și interdependent al sistemului financiar, de capacităţile sale indefinite de transcendere a frontierelor naționale şi internaţionale, fizice şi virtuale, este dificil de controlat şi cuantificat, dar, tocmai de aceea, face posibilă manipularea integrității datelor deţinute de instituțiile financiare şi, în consecinţă, intenționat sau nu, amenință stabilitatea financiară locală, regională, ca și stabilitatea sistemului financiar internațional.

1.1.2. Chiar dacă sunt țări (Danemarca, Finlanda și Suedia)[41], în care economia funcţionează, peste 90%, fără numerar, iar costul total al sistemului de plăți este mai mic, totuşi, dintr-o perspectivă complementară, este bine de remarcat faptul că, spre deosebire de criza globală (2007-2008), riscurile de manipulare financiar-bancară există independent de fundamentele economice subiacente și vor crește – spun specialiştii - pe măsură ce tot mai multe guverne vor face din economia fără numerar [*cashless economies*] un obiectiv explicit[42].

2. Tehnicile de manipulare au cunoscut o evoluție importantă în timp. Odată cu difuzarea zvonurilor și a *fake information*, care creează o imagine falsă a pieței, agenții (indivizi, entitati antreprenoriale, banci, corporatii etc.) profită ca să își sporească beneficiile personale în detrimentul altora. Acest fapt, a dus la dezvoltarea de noi tehnici greu identificabile și, astfel, imposibil de sancționat într-un interval de timp rezonabil de mecanismele de reglementare existente pe piață.

2.1. Liderii mondiali ar trebui să conştientizeze, în mod oficial, că asemenea comportamente, specifice prădătorilor reprezintă un efect dezastruos al unei lăcomii istorice, susținută și legalizată de războaie și tratate internaționale. Efect, în același timp, al unor dramatice deficite tradiționale de educație și morală, devenite strategii globale.

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3. Pe baza unor concepte testate de-a lungul timpului, în spaţiul logicii pluridimensionale[43], al matematicilor superioare, de tipul Fuzzy (fuzzy logic, fuzzy theory), Fuzzylogik (‚verwischt', ‚verschwommen', ‚unbestimmt', ‚unscharfe Logik') sau .sous-ensembles flous'; dar şi în zona IT (*A fuzzy-set manipulation system*)[44], ne-am propus un concept de operare şi constrângere ideatică: *manipularea economică difuză*.

3.1. Având permanent în subsidiarul demonstraţiei, manipularea regională sau globală a burselor[45], descifrată şi analizabilă, am preferat să ne concentram micro-analiza pe manipularea economică difuză exercitată prin intermediul *Grupului celor douăzeci de miniștri ai finanțelor și ai guvernatorilor băncilor centrale* (*Group of Twenty Finance Ministers and Central Bank Governors - G20*) de diverse puteri, guverne, entităţi financiare etc.

3.2. Încă de la bun început, două deficiențe 'tehnice' au subminat rapoartele oficiale privind protecționismul exercittat de G20: limitarea politicilor monitorizate, în principal, pentru restricțiile de import și export aplicate extensiv într-o anumită perioadă istorică și măsurile de protecție contingente, pe de o parte; și, pe de altă parte, decizia deliberată de a nu actualiza totalurile anterioare privind protecționismul, când informațiile erau actualizate. Mai mult, monitorizarea oficială a protecționismului a fost compromisă de lipsa de cooperare în verificarea intervenției politice de către anumite guverne membre ale G20.

3.2.1. În raportul său de monitorizare din septembrie 2017, privind intervenția guvernului G20, Secretariatul WTO (The World Trade Organization) a reținut că «la solicitarea Directorului General, delegaţii G20 au transmis răspunsurile inițiale. Aceste date, precum și informațiile colectate din alte surse, au fost returnate pentru verificare. Cu toate acestea, în câteva cazuri, Secretariatul a primit doar răspunsuri parțiale și nu de puţine ori cu mult după termenul limită».[46] Lipsa de cooperare a multor membrii G20 a primit un vot de blam dramatic, în 2017, când Secretariatul WTO a stopat redactarea rapoartelor sale cu privire la *General Economic Support Measures*, subvenții tipice etc.

3.2.2. Un grup independent, *Global Trade Alert* (GTA), a documentat peste 15 000 de liberalizări și intervenții politice protecționiste, care au fost implementate la nivel mondial, începând cu noiembrie 2008. Într-o analiză a surselor, care documentau modul de selecţie a politicilor comerciale în 2016, grupul GTA a precizat că Fondul Monetar Internațional «are cea mai cuprinzătoare evidență a tuturor tipurilor de discriminări comerciale, precum și a măsurilor de liberalizare a comerțului». Merită menţionat că rapoartele GTA se referă, fără complexe, la executivul corporatist, la factorii de decizie politică şi la liderii media mondiali, iar cele 1400 de studii și intrări, realizate de acest grup independent, se regăsesc și în baza de date Google Scholar. Ca o confirmare a credibilităţii GTA, un organism de calibrul *The Swedish National Board of Trade* s-a bazat pe rezultatele şi datele GTA când a trebuit să revizuiască protecționismul, din primele decenii ale secolului XXI. De reținut, de asemenea, că numai 6,8% din informațiile, care documentează intervențiile politice, se bazează pe surse neoficiale.

4. Diagrama 1, *infra*, arată în ce măsură și cât de mult a fost falsificat cuantumul real al protecționismului, *manipulat difuz* de membrii G20. Conform informațiilor actuale, peste 200 de intervenții politice, care prejudiciază interesele comerciale străine şi pregătesc crizele asimetrice, sunt implementate în fiecare trimestru de guvernele G20.

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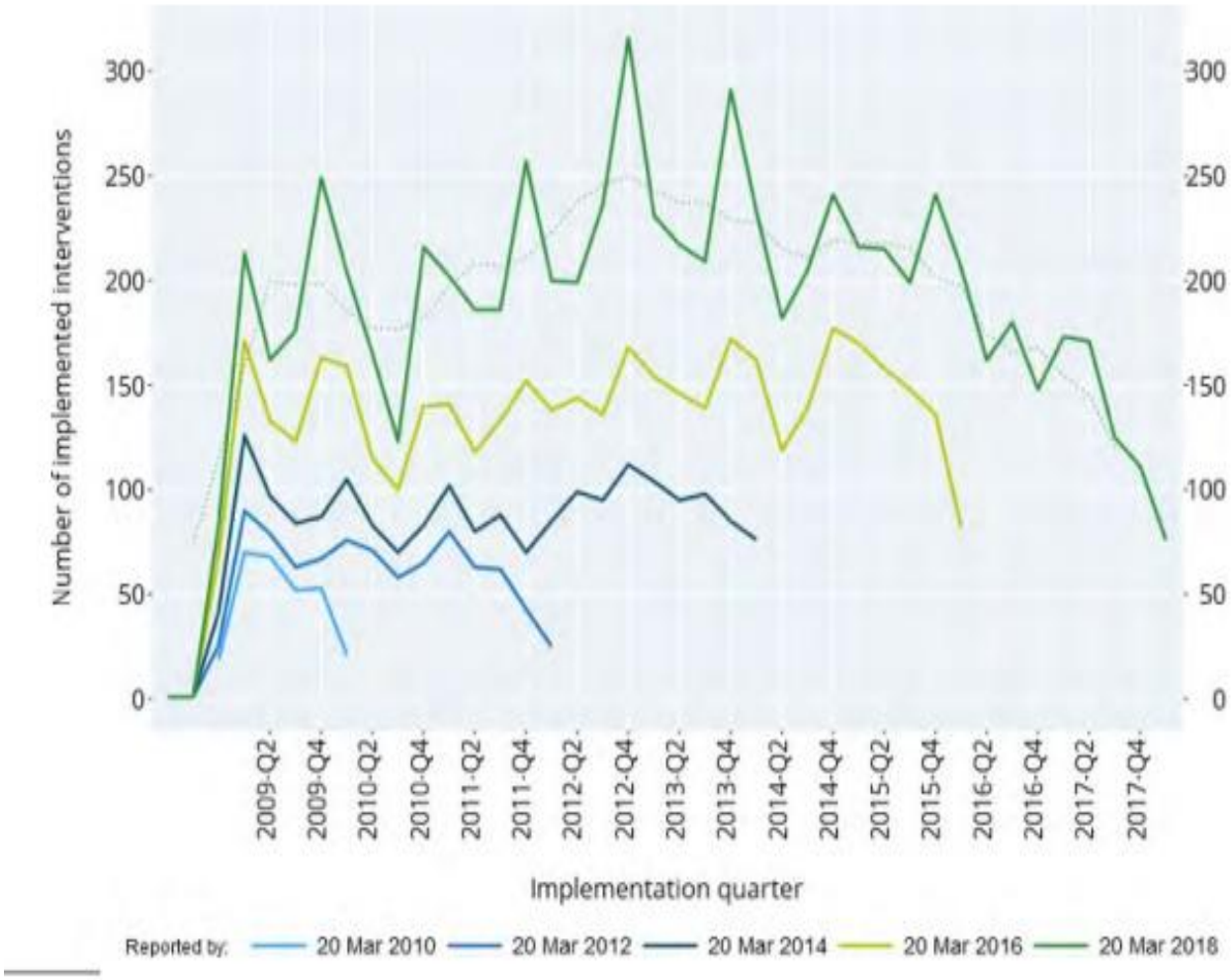
Figura 1. Evoluția numărului de intervenții politice operate de guvernele G20

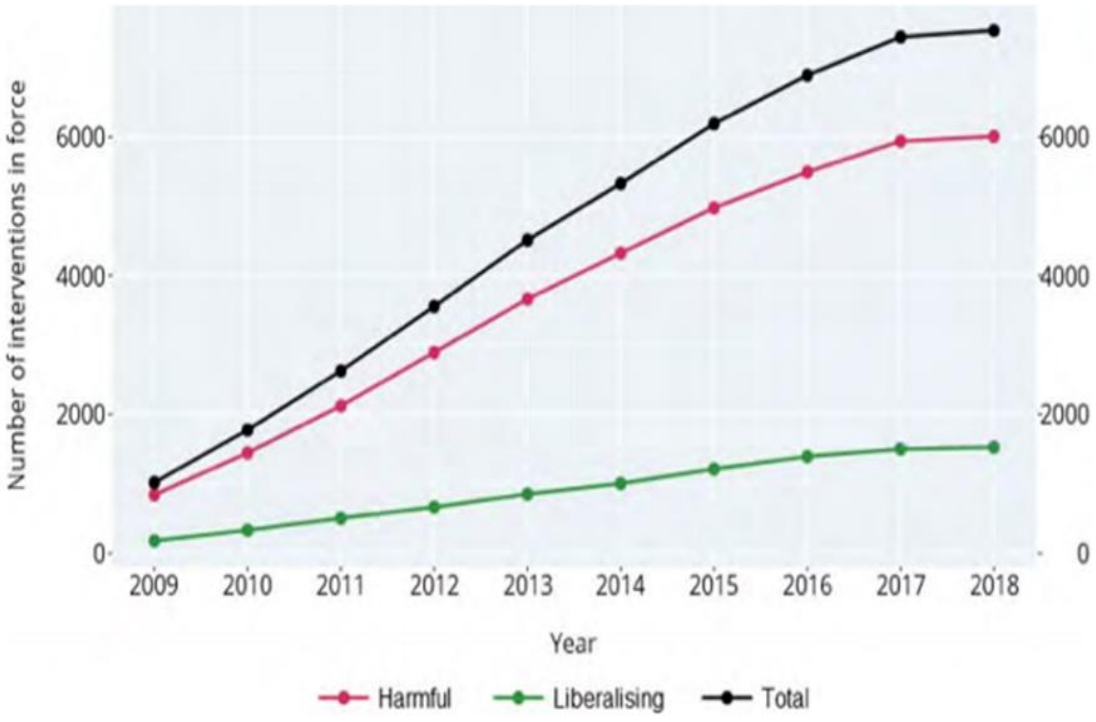


Sursa: GTA, 20 martie 2018.

Această diagramă arată numărul total de intervenții politice, operate de guvernele G20, care protejează interesele comerciale interne, în defavoarea concurenței străine. Datele transcrise arată relația direct proporțională dintre creșterea trimestrială a raportărilor și cascada informațiilor 'disponibilizate', privind politica intervenţionistă.

4.1. S-a constatat că G20 a recurs la protecționism încă de la debutul crizei financiare mondiale. Luând în considerare eliminarea treptată a măsurilor protecționiste temporare, ca și eliminarea altor intervenții politice discriminatorii, *Diagrama 2* descrie numărul măsurilor protecționiste implementate de guvernele G20. Se constată că la sfârșitul fiecărui an - din 2009 până în 2017 și, de asemenea, până la 20 martie 2018 - guvernele G20 au impus peste 6 000 de intervenții politice, în favoarea companiilor locale și în dauna competitorilor străini, care aveau un istoric al activității desfășurate.

Figura 2. Structura intervențiilor politice operate de guvernele G20 în perioada 2009 - 2018



Sursă: GTA, 20 martie 2018

Interpretarea graficului: Linia curbă de culoare roșie = numărul total de intervenții politice ale guvernelor G20, care au protejat interesele comerciale interne. Linia curbă de culoare verde = numărul total de intervenții politice ale guvernelor G20, în vederea optimizării modalităților de relaționare legislativă și politică, aplicate la companiile străine, comparativ cu cele naționale.

4.2. Până în noiembrie 2017, Centrul European Independent pentru Economie Politica Internatinala (*The independent European Centre for International Political Economy* - ECIPE) documentase 87 de restricții (Ferracane 2017). Dovezile sunt acum (2018) în creștere, pe impactul negativ al acestor restricții asupra PIB-ului. Un studiu anterior al ECIPE identificase un pachet de 22 de restricții, aplicate în statele membre ale UE, estimând că prevenirea aplicării la nivelul UE a acestor măsuri ar evita pierderi economice anuale în cuantum de 52 miliarde de euro (Bauer et al 2016). Având în vedere recuperarea redusă a economiei UE, nu este momentul să se absoarbă o recurență ulterioară 0,4% din PIB.

4.3. Protecționismul, ***manipularea economică difuză***, exercitat de G20, amenință LDG (*Least Developed Countries*) în programul lor de realizare a Obiectivelor de Dezvoltare Durabilă (*Sustainable Development Goals* **-** SDG). Transformarea structurilor lor economice este esențială, iar comerțul și migrația sunt factorii componenți, fundamentali, ai acestui proces. Din păcate, protecționismul pe scară largă din țările G20 nu numai că limitează eforturile de accedere pe traiectorii ascendente, dar pregătește spațiul politico-economic pentru noi crize regionale sau/și globale. Dovezi recente, adunate de GTA în martie 2018, arată că 79% din exporturile de bunuri din LDC se află în competiții inegale pe piețele externe, în primul rând, din cauza presiunilor uriașe exercitate de distorsionările comerciale, impuse și puse în aplicare de țările G20. Rapoartele precizează că 4,3% din aceste distorsiuni comerciale provin din majorările tarifare, iar 19% se datorează «licențelor neautomate» [«Non-automatic import licensing»][47] Multe distorsionări sunt efectul pervers al diverselor forme de subvenții și stimulente pentru export, asigurate de sistemul național de taxe. Pe de altă parte, nu numai LDC, ci și țări în curs de dezvoltare, consideră că

[47] "Non-automatic import licensing is defined as licensing not falling within the definition of automatic import licensing (Article 3.1). Non-automatic licensing is used to administer trade restrictions such as quantitative restrictions which are justified within the WTO legal framework.

[URL. https://www.wto.org/english/tratop_e/implic_e/implic_info_e.htm].

exportul în țările G20 devine tot mai dificil, dată fiind și subvenționarea concurenței pe terțe piețe. Iată doar câteva din mecanismele inocente, oficiale, ale *manipulării economice difuze*.

5. Provocările dezvoltării durabile sunt în primul rând etice. În condițiile unei crize mondiale, educația reprezintă cea mai eficientă modalitate de formare a unei baze sociale și intelectuale pentru

implementarea principiilor dezvoltării durabile și a ideilor de coevoluție. Ca efect aparent secundar, educaţia ar trebui să asigure baza informaţională şi morală pentru remodelarea pozitivă a manipulărilor difuze, insidioase, devenite endemice. Dimensiunea spirituală a modelului de dezvoltare durabilă constă în dezvoltarea potențialului uman, în primul rând, prin sistemul educațional.

5.1. Noțiunea de «Education for Sustainable Development» (ESD) a apărut pentru prima dată în documentele ONU, din a doua jumătate a secolului XX. La Conferința ONU de la Rio de Janeiro din 1992, privind mediul și dezvoltarea, s-a subliniat faptul că educația este unul dintre factorii cheie ai dezvoltarii sustenabile, «un factor decisiv al schimbării». Summitul mondial privind dezvoltarea durabilă, desfășurat la Johannesburg în septembrie 2002, propune ca educația pentru dezvoltare durabilă să fie considerată una dintre principalele priorități ale UE. În prezent, obiectivele principale ale ESD sunt dezvoltarea gândirii sistemice asupra lumii și a gândirii critice, dobândirea de noi cunoștințe și abilități, care să contribuie la dezvoltarea durabilă a societății; cultivarea valorilor morale și a activismului social.

5.2. Productivitatea și bogăția globală sunt uimitoare pentru tânăra generaţie romantică. Economia mondială produce în jur de 127 trilioane de dolari pe an la prețuri internaționale, pentru o producție medie pe persoană de 16.770 de dolari, distribuită foarte inegal în lume. Cu acest nivel mediu de producție pe cap de locuitor, sărăcia extremă s-ar fi încheiat cu mult timp în urmă, dacă țările ar fi acționat cu îndrăzneală și în parteneriat internațional. Dar economia mondială, bazată pe piață, este alimentată de *lăcomie*. Prădătorii stau la pândă, hăituiesc, vânează, caută profitul, mai degrabă decât *binele comun*., pun la cale crizele asimetrice, atipice, neaşteptate. Asta se întamplă când o firmă de pe Wall Street realizează un profit urias, prin tranzacționarea de informații privilegiate; când companiile farmaceutice ridică prețul medicamentelor pentru a maximiza profiturile; când instituțiile financiare și chiar anumite țări promovează evaziunea fiscală și spălarea banilor. Profitul ar putea fi, în continuare, un instrument, dar ar trebui folosit de o conștiință morală, care să facă distincția dintre bine și rău. Unii ar putea susține, însă, că această viziune a binelui comun - prin care bunăstarea fiecăruia este strâns legată de bunăstarea tuturor - este utopică.

5.3. Totusi, în termenii pragmaticii psiho-sociale, politico-economice, Obiectivele de Dezvoltare Durabilă (SDG), adoptate de toate națiunile din lume în septembrie 2015, oferă cea mai bună foaie de parcurs pentru a face această *Renaştere etică necesară*, la nivel global. Cele șaptesprezece obiective, axate pe schimbarea paradigmei economice dominante, recomandă ca progresul economic să fie sicronizat cu incluziunea socială nediscriminatorie și cu sustenabilitatea ecologică.

5.3.1. Soluţii şi mecanisme, propuse de organizaţii tradiţional-istorice şi fundamentale ale planetei: taxarea averilor deținute în paradisurile fiscale (20-30 trilioane $) la o rată de până la 1%, ar genera mai mult de 200 miliarde de dolari pe an. Stabilirea unui Fond Global (*the Global Fund*) pentru Obiectivele Dezvoltării Durabile (*the Sustainable Development Goals* - SDG), pe care miliardarii lumii (Forbes, 2015) ar putea să-l încarce minimalist, dar suficient pentru reechilibrarea balanţei economice şi morale.

5.4. Viitorul omenirii, mai afirmă ultimii utopişti contemporani, printre care mă număr şi eu, se bazează pe câteva adevăruri-valori esențiale, unul fiind acela că dezvoltarea universal durabilă impune exigent imperative etice, integrate în viața socială, implementate în ‘industria’ educațională, la toate nivelurile sale. Modalitatea, legitimată de istoriile multi milenare ale civilizaţiilor pământene: *Şcoala*. *Reformarea şi Renaşterea ei*. Centrul de gravitatie al acestei Reforme-Renaştere: responsabilizarea etică și *conştientizarea valorilor comunitar-globale*.

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SUSTAINABLE AND INCLUSIVE ECONOMIC GROWTH, SUSTAINABLE DEVELOPMENT AND RELATED CONTROVERSIES

THE INFLUENCE OF COUNTRY RATINGS ON FOREIGN DIRECT INVESTMENT IN ROMANIA

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Abstract

It is well known that the country rating given by major rating agencies is an important factor that influences the behaviour of investors on a particular market. The paper aims to track the evolution of country ratings granted to Romania since 2000 and how they influenced foreign direct investments in our country.

Keywords: *country risk, country ratings;*

JEL classification: *C20, G17, G24;*

Introduction

First we will check the degree of correlation between the ratings of the three big agencies (Moody's Standard&Poor's and Fitch) and the foreign direct investments, then we will analyze the evolution of the received ratings and the investment flow year after year to see if ratings are in line with economic developments and to what extent investments are tracking country ratings

Methodology and Data Sources

In this paper it is intended to be assessed the impact of countries ratings on foreign direct investments. The paper is treated methodologically as a case study for Romania. For the period 2000-2017 the analysis is rather descriptive (thus using many figures) because the series of data is rather short, but for period 2007:M1-2017:M12 we used econometric analysis. In this sense, we will use two methods in order to understand and explain the connection between FDI and ratings. First, we have done a correlation matrix to see the link between FDI and Romania's sovereign risk ratings of three agencies: Moody's (SR-Moody's), S&P (SR-S&P), Fitch (SR-Fitch). Then, it will be constructed a regression equation to explain FDI according to sovereign ratings. After that, the Augmented Dickey-Fuller (ADF) test is used in order to examine the stationarity properties of the level and first difference of FDI and sovereign ratings. The data series is from National Bank of Romania (NBR) (for FDI express in million EUR, direct net investment) and Ministry of Public Finance of Romania. It would have been desirable to have data on inflows of foreign direct investment, but in their absence, we will use net investments that are net transactions involving financial assets and liabilities as direct investment between residents and non-residents; the minus sign indicated by the NBR is the net accumulation of liabilities of the nature of foreign direct investment. Since there have been some methodological changes in NBR statistics, we have adapted the older data to the Balance of Payments Manual and the International Investment Position of the IMF, 6th Edition, 2009 (BPM6). Finally, it is used the Granger causality test to see the direction of the correlation between FDI and Romania's ratings.

Results Obtained

In this paper, it is assessed the connection between Foreign Direct Investments (FDI) and country's ratings using a sample set of monthly data from Romania for the period of 2007-2017.

If we look at the situation of the FDI correlated with the sovereign ratings for Romania of main agencies, we can observe (Table 1) that, excluding the correlation between sovereign ratings between them, the correlation matrix shows that SR-S&P, SR-Moody's and SR-Fitch are rather

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equally correlated with FDI evolutions for Romania, but the values of correlation are rather poor. In the Figure no.1 it can be seen that FDI and ratings have not a clear trend.

Table 1. Title Matrix of correlation between FDI and sovereign ratings for Romania of main agencies for 2007:M1-2017:M12

	FDI flow	SR-Moody's	SR-S&P	SR-Fitch
FDI flow	1			
SR-Moody's	0.1843	1		
SR-S&P	0.1860	0.4820	1	
SR-Fitch	0.2115	-0.0879	0.6533	1

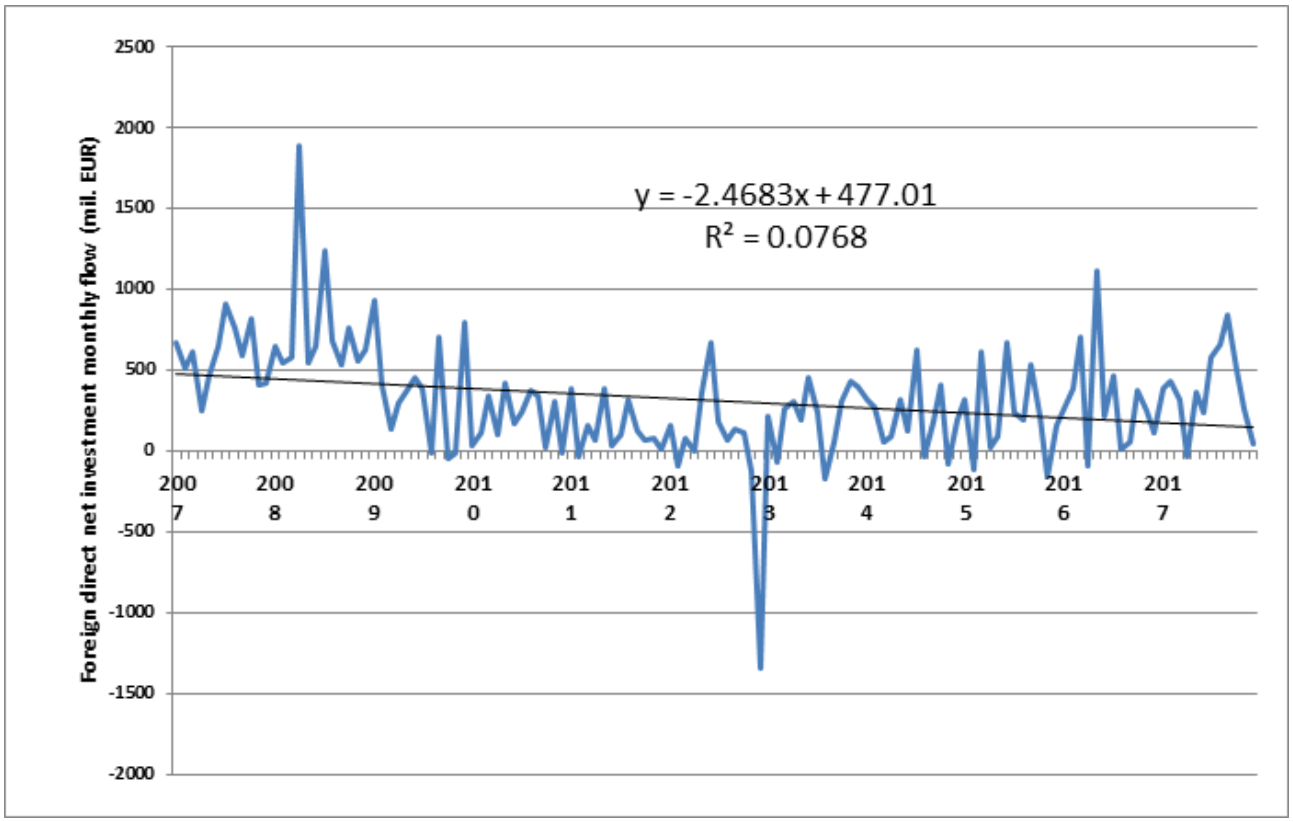
Source: Authors' calculations with data analysis tools.
Data from NBR of Romania and Ministry of Public Finance of Romania

The paper tries to evidence the connection between FDI and sovereign ratings of Fitch, S&P and Moody's rating agencies, thus based on the results of correlation matrix the model is formulated as:

$$FDI_t = \beta_0 + \beta_1 SR\text{-}Moody's_t + \beta_2 SR\text{-}S\&P_t + \beta_3 SR\text{-}Fitch_t + \varepsilon_t \quad (1)$$

Where: FDI is the foreign direct investment (mil. EUR) in the year t, SR-Moody's$_t$ is sovereign rating of Moody's the in the year t, SR-Fitch$_t$ is sovereign rating of Fitch the in the year t, ε_t is an error term in the year t and β_0, β_1 and β_2 are the equation's coefficients. Based on the established model, we design the regression equation (see Table 2).

Figure 1. Trends of monthly net FDI flow and Sovereign Ratings for Romania for 2007:M1-2017:M12



Source: Data from NBR and Ministry of Public Finance of Romania

Table 2. Regression equation in order to explain the relationship between FDI and sovereign ratings for Romania of main agencies for 2007:M1-2017:M12

Regression Statistics	
Multiple R	0.32
R Square	0.10
Adjusted R Square	0.08
Standard Error	326.93
Observations	132

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	1522304.80	507434.93	4.75	0.00
Residual	128	13681388.70	106885.85		
Total	131	15203693.50			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	5447.76	1465.03	3.72	0.00	2548.95	8346.57	2548.95	8346.57
SR-Moody's	-374.56	138.53	-2.70	0.01	-648.67	-100.45	-648.67	-100.45
SR-S&P	134.30	95.44	1.41	0.16	-54.54	323.15	-54.54	323.15
SR-Fitch	-191.11	69.04	-2.77	0.01	-327.71	-54.50	-327.71	-54.50

Source: authors' calculations with Excel data analysis; data from NBR of Romania and Ministry of Public Finance of Romania,

Analyzing the value of the determination coefficient or R2, which is used to measure the intensity of the correlation between the endogenous variable and its determinants, it is observed that the value of 0.10 is rather poor. At the same time, with respect to the adjusted R2, equal to 0.08 at the sample level, it can be suggested that there is no strong correlation between the variables in the model but the F significance and the associated probability or the p-values of independent variables are well below 0.05 (except the p-values of SR-S&P) which confirms that for those indicators, the null hypothesis H0 can be rejected, thus the model is well specified.

In order to adjust the results (to increase adjusted R2), we used a Bayesian VAR Estimates for the expressed equation and the results contain also the methods of estimation of the volatility of statistical series (ARCH and GARCH). The adjusted determination coefficient of 0.827806 reflects the strong correlation between the model variables. The enormous difference between the two approaches reflects the fact that Bayesian VAR Estimates is a lot more accurate compared to the classical one.

Table 3. The Bayesian VAR estimation of the regression equation in order to explain the relationship between FDI and sovereign ratings for Romania of main agencies for 2007:M1-2017:M12

Bayesian VAR Estimates	
Date: 12/14/18 Time: 12:21	
Sample (adjusted): 3 132	
Included observations: 130 after adjustments	
Prior type: Litterman/Minnesota	
Initial residual covariance: Univariate AR	
Hyper-parameters: Mu: 0, L1: 0.1, L2: 0.99, L3: 1	
Standard errors in ( ) & t-statistics in [ ]	
	FDI_FLOW
FDI_FLOW(-1)	0.712416
	(0.047260)
	[15.07470]

Source: authors' calculations with Eviews 10

Table 3. The Bayesian VAR estimation of the regression equation in order to explain the relationship between FDI and sovereign ratings for Romania of main agencies for 2007:M1-2017:M12 (continuation)

FDI_FLOW(-2)	0.121785
	(0.040790)
	[2.985460]
SR_FITCH	-10.79278
	(7.31914)
	[-1.474600]
SR_MOODY_S	15.144400
	(8.939650)
	[1.694070]
SR_S_P	0.152144
	(11.574000)
	[0.013150]
R-squared	0.833145
Adj. R-squared	0.827806
Sum sq. resids	251496.500000
S.E. equation	44.855010
F-statistic	156.038200
Mean dependent	314.022900
S.D. dependent	108.093900

Source: authors' calculations with Eviews 10

Also, to adjust the model and make correct specification, we will perform the Augmented Dickey-Fuller unit root test in levels and recognized first differences in order to determine univariate properties of the used data series (See Table 4).

Table 4. Augmented Dickey - Fuller Unit Root Test and Stationary Results, for FDI and sovereign ratings for Romania, 2007:M1-2017:M12

Serial label	Level	Critical value		First difference	Critical value	
	Constant&Trend	5%	1%	Constant	5%	1%
FDI_Flow	-3.7929	-3.4450	-4.0307	-15.0083	-2.8839	-3.4816
SR_S_P	-3.0804	-3.4445	-4.0296	-11.3234	-2.8838	-3.4812
SR_MOODY_S	-1.4234	-3.4445	-4.0296	-11.3429	-2.8838	-3.4812
SR_FITCH	-2.1588	-3.4445	-4.0296	-11.3401	-2.8838	-3.4812

Source: authors' calculations in Eviews10; data from NBR and Ministry of Public Finance of Romania

In Table 4 we could reject the null hypothesis of unit roots for FDI flow for trend with constant but we could not reject the null hypothesis in level form for trend with constant for SR_S_P, SR_Moody's and SR_Fitch. However, the null hypothesis was rejected when ADF test was applied to the first differences with intercept for FDI flow, SR_S&P, SR_Moody's and SR_Fitch. Thus, the calculated Augmented Dickey-Fuller test statistics are less than their critical values, suggesting that the variables are not stationary at level. The fist differences of FDI flow, SR_S&P, SR_Moody's and SR_Fitch with constant are stationary, indicating that these variables are integrated of order one I(1).

For Granger Causality the results are presented in Table 5. When the probability is under 0.05 we can reject the null hypothesis, thus the FDI Flow does Granger cause SR_S_P and FDI does Granger cause SR_FITCH for Romania.

Table 5. Standard Granger Causality Test Results, for FDI and sovereign ratings for Romania, 2007:M1-2017:M12

Pairwise Granger Causality Tests
Date: 11/23/18 Time: 22:01
Sample: 1 132
Lags: 12

Null Hypothesis:	Obs	F-Statistic	Prob.
SR_MOODY_S does not Granger Cause FDI_FLOW	120	1.57508	0.1121
FDI_FLOW does not Granger Cause SR_MOODY_S		0.51073	0.9032
SR_S_P does not Granger Cause FDI_FLOW	120	0.90688	0.5432
FDI_FLOW does not Granger Cause SR_S_P		1.81509	0.0563
SR_FITCH does not Granger Cause FDI_FLOW	120	1.64262	0.0928
FDI_FLOW does not Granger Cause SR_FITCH		2.51458	0.0065
SR_S_P does not Granger Cause SR_MOODY_S	120	0.63157	0.8105
SR_MOODY_S does not Granger Cause SR_S_P		0.41132	0.9559
SR_FITCH does not Granger Cause SR_MOODY_S	120	0.56172	0.8674
SR_MOODY_S does not Granger Cause SR_FITCH		0.06429	1.0000
SR_FITCH does not Granger Cause SR_S_P	120	0.61502	0.8247
SR_S_P does not Granger Cause SR_FITCH		0.47898	0.9225

Source: authors' calculations in Eviews10; data from NBR and Ministry of Public Finance of Romania

Table 6. The evolution of country ratings and the level of foreign direct investment FDI and sovereign ratings for Romania, 2000-2008

YEAR	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
FDI (Mil Euro)	1147	1294	1212	1946	5183	5213	9059	7250	9496
Standard & Poor's									
Data	Aug. 4	Mar. 5	Apr. 19	Feb. 27	Sep. 14	Feb. 01	Sep. 5	Apr. 5	Oct. 27
Action	PC	PC	R+	R+	R+, PC	PC	PC	PC	R-
Rating/Perspective	B-/St	B-/P	B+/P	BB-/P	BB+/St	BB+/P	BBB-/P	BBB-/S	BB+/N
Data		Jun. 07		Sep. 17		Sep. 06		Nov. 06	
Action		R+		R+		R+, PC		PC	
Rating/Perspective		B/P		BB/P		BBB-/St		BBB-/N	
Fitch									
Data	21 sept	14 nov	14 jun	18 dec	23 aug	-	31 aug	-	31 ian
Action	PC	PC	R+	R+	PC	-	R+	-	PC
Rating/Perspective	B-/St	B/P	B+/St	BB/St	BB/P	-	BBB/St	-	BBB/N
Data	Nov. 16		Oct. 30		Nov. 17				Nov. 09
Actiune	R+		R+		R+				R-
Rating/Perspectiva	B/St		BB-/St		BBB-/St				BB+/N
JRCA									
Data	May 29	Dec. 12	Dec. 18	Dec. 17	Nov. 15	Sep. 09	Nov. 29	-	Dec. 18
Action		PC	R+	PC	R+	R+	R+	-	R-, PC
Rating/Perspective	BB-	BB-/P	BB/St	BB/P	BB+/P	BBB-/St	BBB/St	-	BBB-/N
Moody's									
Data	-	Dec.	Dec.	Dec.	-	Mar.	Oct.	-	-
Action	-	R+	R+	R+	-	R+	R+	-	-
Rating/Perspective	-	B2	B1/St	Ba3	-	Ba1/Po	Baa3/St	-	-
Rating or persp. change(+/-)	3	5	5	5	4	4	4	2-	3-

Source: data from NBR and Ministry of Public Finance of Romania

Table 7. FDI and sovereign ratings for Romania, 2009-2017

YEAR	2009	2010	2011	2012	2013	2014	2015	2016	2017
FDI (Mil Euro)	3488	2220	1815	2138	2725	2 421	3 461	4517	4797
Standard & Poor's									
Data	-	Mar. 09	Nov. 29	-	Nov. 22	May 16	-		
Action	-	PC		-	PC	R+, PC	-	-	-
Rating/Persp.	-	BB+/St	BB+/St	-	BB+/P	BBB-/St	-	-	-
Fitch									
Data	-	Feb. 02	Jul. 04	-	-	-	-		
Action	-	PC	R+	-	-	-	-	-	-
Rating/Persp.	-	BB+/St	BBB-/St	-	-	-	-	-	-
JRCA									
Data	-	Dec. 17	-	-	-	-	Apr. 23		
Action	-	PC	-	-	-	-	PC	R+,PC	-
Rating/Persp.	-	BBB-/St	-	-	-	-	BBB-/P	BBB/St	-
Moody's									
Data	-	-	-	Jun.	-	Apr.	Dec.	-	Apr.
Action	-	-	-	PC	-		PC	-	PC
Rating/Persp.	-	-	-	Baa3/N	-	Baa3/St	Baa3/P	-	Baa3/St
Rating or persp. change(+/-)	-	3+	2+	1-	1	1	2	1+	1-

Source: data from NBR and Ministry of Public Finance of Romania

Legend:

"PC"- perspective change; "R-" - rating downgrade; "R+" - rating increase;
Perspective: "N" – negative; "P"- positive; "St" – stabile;

Remarks

Until 2008, the beginning of the global financial crisis, Romania was evaluated very often (even twice a year). During this period Romania has constantly received rising ratings. The period 2000-2008 has been for Romania a period of economic growth, GDP rising every year. Foreign investment (flow and balance) has also increased year on year. Although 2008 has been a good year for the Romanian economy with a GDP growth of 7.3% and direct foreign investment inflows of 9.5 billion euros, Romania's ratings has been deteriorated by 3 rating agencies.

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
FDI (mil Euro)	1147	1294	1212	1946	5183	5213	9059	7250	9496

In 2009, Romania has been in severe recession, GDP has decreased by 6.6% and foreign direct investment has diminished by 70%. Despite this situation, the rating agencies have not changed the outlook of Romania's ratings.

In 2010, Romania's negative economic performance has continued, (GDP has decreased by 1.1% and the FDI inflows have reached 2.2 billion Euros). Despite this, the three agencies that have downgraded Romania's ratings in 2008, now have slightly raise its ratings (change by perspective).

In the period after the beginning of the crisis, the frequency of assigning a rating has been considerably lower than before (which has been a period of exuberance - AAA ratings for unsecure financial products were easily granted) even though Romania's economic path is good, even very good if we compare Romania's economic growth to that of other countries, including those in the EU.

The ratings that Romania had before the crisis have been assigned again in 2014 by Standard & Poor's (BBB with stable outlook) and Moody's (Baa3 with stable outlook).

The JRCA agency only at the beginning of 2016 reassigns Romania the BBB rating with a stable perspective that Romania had in 2006-2007.

The BBB rating with a stable outlook assigned by Fitch in 2006 has not been reached by Romania until now, the current rating being smaller, BBB- with a stable outlook.

Romania's accession to NATO in 2004 and to the EU in 2007 has had an important role in receiving rising ratings in the period 2000-2008. Romania's accession to the European Union took place on 1 January 2007. This date was proposed at the Thessaloniki Summit in 2003 and confirmed in Brussels in June 2004. If until 2003 the value of the foreign investments inflows was constant and relatively small, from 2003 to 2008 they had an extremely rapid growth, with investments in 2008 being about 8 times higher than in 2002.

A direct effect of country's ratings deterioration for Romania, as well as of the global crisis, has been the decrease of the foreign investment inflows from 2008 to the present.

Year	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
FDI (mil Euro)	3488	2220	1815	2138	2725	2 421	3 461	4517	4797

In 2015, 2016, 2017, Standard & Poor's and Fitch hold unchanged Romania's country rating from 2014, while the ratings granted by JRCA and Moody's have a similar movement, growth-decrease by changing he perspective from stable to positive and then rebound.

The value of foreign direct investment has declined during the crisis, with FDI in 2011 being less than 20% of the value of 2008, when foreign investments inflows have reached a maximum for Romania.

From 2011, foreign direct investment inflows have had an upward trend until 2017, when although there are the highest post-crisis investments, their value has only reached 50% of foreign direct investment inflows in 2008.

One can see that the increase in the country ratings is reflected in an increase of direct investments inflows in the following year (e.g. 2001, 2003, 2004, 2005, 2006) except for the years 2002 and 2007 when the investments have been lower than in the previous year despite upgraded ratings granted previously.

Although in 2007 there are two negative announcements of Standard & Poor's rating agency referring to Romania's downgrading, in the following year, it will take place the largest foreign investment inflows in Romania after 1989.

The 2008 crisis and the deterioration of the country's rating in 2008 resulted in a 3-year drop in foreign direct investment inflows (2009, 2010, 2011), and the country's raise of rating from 2010 did not influenced positively next year's investment inflows.

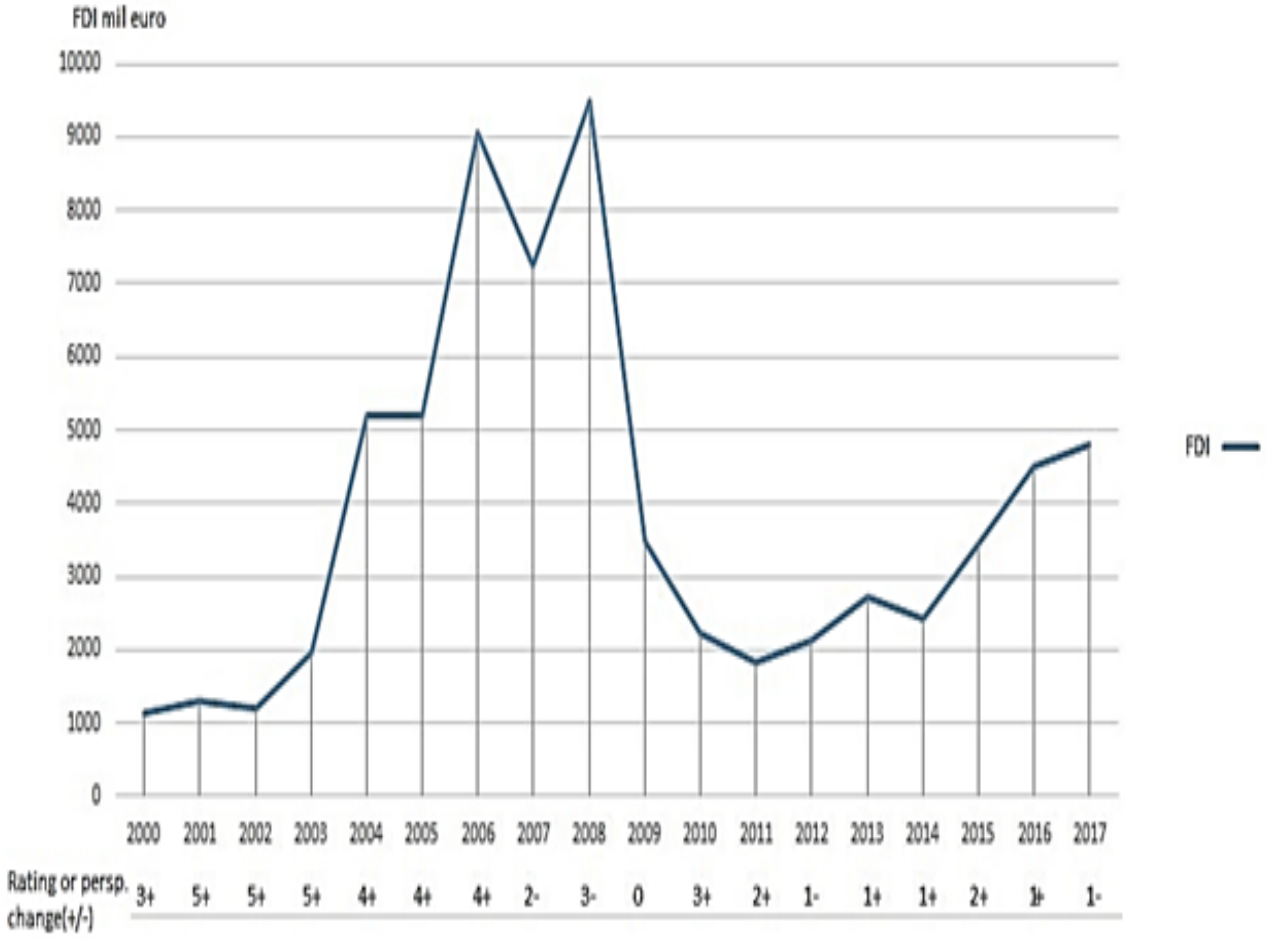
Only in 2012, investments began to rise year on year with the exception of 2014 that can not be correlated with previous ratings.

The increase in FDI in 2016 and 2017 does not confirm the rating downgrade by changing the outlook from positive to stable of Moody's and JRCA (Explanation:

1. The expansive fiscal policy of Romania that has led to a substantial increase in the fiscal deficit, which is expected to generate an upward path in the public debt-to-GDP ratio.

2. Procyclical macroeconomic policies, which have led to a rapid rise in wages, a deterioration in price competitiveness, and an increase in the current account deficit.)

Figure 2. FDI flow and Change in Sovereign Ratings or Perspective for Romania between 2000 - 2017



Source: Data from NBR and Ministry of Public Finance of Romania

Conclusions

The article proposes an empirical analysis of foreign direct investment and the evolution of country ratings of the main international rating agencies (Moody's, S&P, Fitch).

If we look strictly at the econometric analysis on monthly data from 2007 (January) - 2017 (December) for Romania, we can see that the correlations between Net Foreign Direct Investment (FDI monthly flow) and the evolution of ratings of the main agencies (Moody's, S&P, Fitch) are rather weak. This is partly explained by a decrease in the net investment flow, but also by a relatively better rating of agencies in the analyses period.

If we look to the regression equation that connects the investments to the ratings of main international rating agencies (Moody's, S&P, Fitch) with the classical instrument of data analysis of Excel we can easily see that the intensity of the correlation between the endogenous variable and its determinants is rather poor, but the F significance and the associated probability or the p-values of independent variables are well below 0.05 which confirms that for those indicators, the null hypothesis H0 can be rejected, thus the model is well specified. Thus, we got further and applied a more accurate Bayesian VAR Estimates for the expressed equation and the adjusted determination coefficient of 0.827806 reflects the strong correlation between the model variables.

Beyond the mild political tensions, Romania's economic and social realities are fairly good compared to the surrounding countries, but the realities are poorly reflected in ratings. Thus, according to some experts and us, the ratings of international rating agencies regarding Romania should have been much better. This aspect of course also reflects in the investment behaviour, and although, according to our Granger causality calculations, ratings do not influence the monthly

flow of net foreign direct investment, but only the monthly flow of net foreign direct investment influences S&P and Fitch ratings, yet it is difficult to say that there was no reverse link. These calculations should be interpreted with caution, given that the investments captured in the econometric analysis are also inputs and outputs and not just what should have been - only inflows of investments. This limitation of data availability should also be taken into account for our results.

As a number of policy-makers have highlighted, given that the ratings of major international agencies can "make up" or worsen the image of a country and influence capital inflows and the foreign investment behaviour, the question is how can be stopped the way of transmitting a bad image to the macroeconomic realities that the ratings agencies should just evaluate, not damage them. The answer to this question, in our opinion, should be reflected, at international level, in a more prudent interpretation and a more limited internalization of ratings evaluations of international rating agencies in all lending and investment decisions.

Future Directions to Be Approached

This type of analysis may be expanded to other countries or regions or involving many other explanatory variables for which there is an availability of data on foreign direct investments and countries ratings. The implications of ratings on foreign direct investments and other variables, although it seems to be of little importance in case of a positive economic development, in the event of macroeconomic shocks or even an economic crisis can prove its destructive capacities. Thus, this subject is an exciting area to explore further.

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SUSTAINABILITY THROUGH KNOWLEDGE. WHY KNOWLEDGE IS A SUSTAINABILITY FACTOR?

Mirea-Gheorghe BERECHET[50]

Abstract

By sustainability must be understood, generally, a property, more exactly, the potential of a given system to replicate itself, no matter if based on internal or external causal factors. Consequently, it seems obvious the information (and, even more, the knowledge) plays a crucial role in take-off-ing and ensuring such a replication, both structurally and functionally. The paper aims to put into evidence such a role of the information/knowledge in founding the sustainability property of the economic systems. The methodology used is the logical analysis, based on the cybernetics of systems. Finally, the paper approaches some particular information contained especially in the public policies of adjustment, putting into evidence the ways in which such an information constitute causal factors in the economic systems sustainability.

Keywords*: sustainability, information, knowledge, feed-back, adjustment*

JEL Classification: *H00, O10, P00*

1. Introduction

At the same time with the high-tech deployment of widespread technologies, mankind has stepped into the era of knowledge, characterized by an innovative economy. with the widespread introduction of high technology, mankind has stepped into the era of knowledge, characterized by an innovative economy. The engine of growth in the innovative economy is no longer the accumulation of capital, as neoclassical economic theory says, but knowledge-based performance in innovation.

The knowledge economy, called by some exegetes the new economy or the network economy, is characterized by the transition from the traditional "heavy" economy to the economy based on high technological development. With this transition, we are witnessing major organizational changes in the structures, strategies and ways in which the management of these entities is exercised.

If the managerial strategies of the old economy predominate to the exaggeration of the need for formal and proprietary links to own resources, in the knowledge economy, the emphasis will increasingly be on the release, management and use of resources. This new economic logic implies that the rate of economic growth in the new economy of innovation depends on the products and services that are mostly gained as a result of capitalizing on knowledge.

The emergence of the Internet in the 1990s was the triggering factor of the third industrial revolution[51] and online business .com. With the economic crisis that started in 2008 and the recession that followed, the consequences of low economic growth have negatively affected global markets, reflecting different consumer behaviors and leading to the development of new business models including the sustainability concept.

2. The Logic of Economic Sustainability

From a logical point of view, the concept of sustainability transcends the existence and autonomous functioning of a system. The issue of sustainability lies only in the systems that comprise cultural subjects simultaneously, in three hypostases within the respective system:

- cognitive - observational subjects;

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[51] *If the first industrial revolution represented the production steam production, the second by the use of power-driven lanes and the third by using computers, the fourth industrial revolution redefines the way industries work, from energy, aviation to transport or medical services, interconnecting data, people and equipment, regardless of their geographical location, in order to increase their efficiency and performance.*

- praxiological - active subjects;

- praxiological objects.

Very often, in common language, the sustainability of a system is confused with its sustainability, although different concepts. Sustainable systems, although they may contain subjects, do not contain cultural subjects as opposed to sustainable subjects. The difference between the two types of systems is of a structural nature and consists of the presence or not of cultural subjects.

Economic theory and institutional management were faced with the choice between growth and balance, because it was self-evident that the choice of growth brought about the removal of the system from the equilibrium state, involving risk, and conversely, keeping the balance could lead to miss the growth. The dilemma found its solution with the introduction of the dynamic equilibrium concept, made possible the economic growth under the conditions of maintaining the balance, understood as an asymptotic tendency towards a static equilibrium never reached, always destroyed (in the sense of the concept of creative destruction attributed to Schumpeter) that the cycle be restored to infinity.

In other words, ensuring economic growth eliminates any dynamic equilibrium that can shock shock and oscillate steadily around a static and referential static equilibrium. Conversely, the intention to ensure dynamic macroeconomic equilibrium that stagnates around a static static equilibrium hampers any healthy economic growth. The dilemma has finally been resolved by introducing the concept of sustainability of growth.

3. The logical relationship between sustainability and globalization

Sustainability can not be dealt with independently of the issue of globalization, and the two processes are interdependent from the point of view:

- ontological;

- logic;

- axiological;

- epistemological;

- praxiologically.

From the point of view of ontology, sustainability (S) and globalization (G), being trans-thematic processes, possess both ontological status. Sustainability is a social artifact, namely an objectification of inter-subjective ideas / projects, while globalization can be, alternatively:

- a social artifact, such as the internet, the financial system etc .;

- a natural fact, such as desertification;

- a social-natural combination, such as landslides due to uncontrolled deforestation.

From the point of view of the logical report, the paradigm of optimality, through the necessity of minimizing the cost of opportunity of economic decisions, necessarily leads to globalization. At the same time, the globalization of the entire planet, it is mandatory to re-integrate outpours into input, as the economic process is replicated, this being the very content of sustainability or sustainability. Therefore, from a logical point of view, no return from sustainability to optimality, all of which necessarily lead to sustainability precisely through the emergence of the process of globalization (Dinga, 2010).

From the axiological point of view (of the value system), sustainability / sustainabilisation and globalization have the highest perpetuity (survival) of the individual and the community, the latter being considered globally (planetary).

From the epistemological point of view, the main epistemological relation between sustainability and globalization is that of testability, because sustainability testing involves passing the system through all the processes that may be the outputs of a given process so that it is sustainable. This route implies globality, because it only assures the totality of the destination processes of the outputs in question. So, from the point of view of testability, sustainability / sustainabilisation

implies globality / globalization. At the same time, globality testing involves identifying and measuring the capacities of the central hub (or central hubs) owned by the process. But this involves identifying the majority (at 80% limit) of the connections (ie inputs / outputs), which indicates the ability to retrieve the outputs of the given process, ie it indicates the sustainability. So, from the point of view of testability, globality implies sustainability.

From the praxiologically point of view, of the actional causality, between sustainability / sustainabilisation and globality / globalization, we have mutual causal relations as follows:

- globalization necessarily implies sustainability because if a process is global, it turns out that it is obligatory to recirculate any output, there being no other outlets for some components of the output, having a process extended to the maximum, the planetary one;

- from sustainability can practically deduce globality as possible because, if a process is sustainable, it provides favorable conditions for the development of globality, for example, as a result of the increase in the number of components of the output vector which therefore need new processes for which to form as an integral input.

4. Management in the knowledge society

Over the past two decades, the unsustainable course that society as a whole is seeing is increasingly visible. Inequalities and inequities, conflict risks, climate change, cyber threats, the crisis of raw materials and the aging of the population in developed countries are the few threats that many of us face.

An aggravating factor that directs mankind in the direction of a major disaster on a planetary level is short-term thinking, which seeks to obtain as much profit as possible in no time, no matter what the consequences. The 2008 crisis is the best example of how old business models on which most organizations operate is not sustainable, and a paradigm shift is also needed in this area.

We are currently witnessing the fierce fight in the innovation market where two global players, the US and the EU, are slowly losing ground to emerging powers such as China, South Korea, India, and so on. The struggle for supremacy is given not only in the traditional sectors, but also in the high technology.

The foregoing leads logically to the conclusion that it is absolutely necessary to adopt solutions that will lead to major structural reforms in the economy and in society. This change in problem-solving should be holistic, which will include promoting long-term planning to ensure overall sustainable development and not just environmental issues. Local and state authorities together with communities will have to ensure job creation in clean and innovative technologies, which will lead to an increase in quality of life and the fight against unemployment over time.

Knowledge management is the process of creating, sharing, using and managing an organization's knowledge and information (Girard, John P .; Girard, JoAnn L., 2015) and is a multidisciplinary approach that aims to achieve organizational goals through optimal use of knowledge . It consists in the systematic process of acquiring, organizing, supporting, applying, sharing and renewing all forms of knowledge, improving organizational performance and creating value (Davenport and Prusak, 1998; Allee, 1997; Alavi and Leidner, 2001).

McElroy (2003) shared the development of knowledge management in several stages:

- the first stage is based on the exchange of information through the use of high technology (IT & C);

- the second stage focuses on sharing knowledge among members of the organization, which leads to the creation of an organizational culture that allows and encourages the exchange of ideas.

- the third focuses on awareness of the importance of content, its retrieval, as well as the arrangement, description and structure of that content

As time passes, several scholarly approaches to the issue of knowledge management have emerged in academic debates:

- technocentric approach, with a focus on technology, ideally that enhances the exchange of knowledge and creation;

- organizational approach, with an emphasis on how an organization can be designed to best integrate knowledge;

- the ecological approach, focusing on people's interaction, identity, knowledge and environmental factors as a complex system of adaptation similar to a natural ecosystem.

At present, in the knowledge management, we are witnessing a transition from the individual forms of knowledge and skills creation based on our own experience, to collective collaborative forms.

5. Socio-economic aspects of sustainability

For modern organizations to operate systematically, strategically, in the long run, they must ensure a sustainable development. This type of development provides organizations with a positive image that leads to a better attraction of human and material capital, business partners as well as clients. Good reputation eliminates staff fluctuations, hiring costs and training for new employees. It is in the interest of each organization to identify the best solutions to gain competitive advantages over competition.

Fighting the effects of stressors at the level of organizations, such as financial crises, climate change, requires solutions available within the concept of sustainable development. This will increasingly require the adoption of environmental solutions at all cultural levels of contemporary organizations.

The development strategies of countries conducting an environmental policy increasingly take into account indicators that measure social responsibility. They measure the degree of readiness that organizations take to carry out their environmental protection activities. Building on previous investments in green projects, agencies calculate social indicators and make their assessment based on business plans, investing in future green projects.

6. Conclusions

Sustainable development is, in the stage that mankind is going through, a growing challenge, and the direction in which we have to move becomes clearer. The key element of this development is knowledge, which is the basis for innovation in all areas. Its high value is the key factor of competitiveness that involves solutions that combine specialized technologies with information technologies.

For sustainability to become a global development model, states, organizations and citizens need to become aware of and adopt its principles. The World Business Council for Sustainable Development (WBCSD) evokes the contribution of sustainability to a better future within the Vision 2050 strategy that outlines the way for a sustainable global society to be achieved by 2050. This road will allow mankind to fall within the resources of planet Earth, slowing down the destruction.

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THE ECONOMIC CRISIS AND SUSTAINABILITY – A DISPUTED INTERACTION AND INFLUENCE

Mioara BORZA[52]

Abstract

The reality of nowadays permit us to point the sustainability as an equilibrated evolution of economics, society and environment. The representatives of economic world discuss about the danger of economic crisis and of environment discuss about the crisis of natural resources, even both are interested to protect the society and to ensure the better living conditions. Between economic crisis and sustainability is a strong connection with reciprocal influence and although the environmental problems started since the '80, their effects are visible today: depletion of resources, human health quality, climate changes etc.

The aim of this paper is to identify the main implications of the economic crisis in the sustainable development process and to find a response to question: may be an economic crisis favourable and desirable for sustainability? So, is essential to know what is this and why the economic crisis appears; then, we can identify their relationship. Our research uses the qualitative analysis by incursion in the literature chronology and we complete it with a quantitative analysis based on indicators relevant for the sustainability and economic crisis, too. We found some explanation for the discrepancies between theory and practice of sustainable development and some explanations of the economic crisis benefits. The main results will demonstrate that not always the economic crisis is undesirable, especially in terms of Dow Jones Sustainability Index. Moreover, we will present the positive implication of the economic crisis on the sustainability and we will demonstrate that between these it exist a favourable connection.

Keywords: *economic crisis, benefits, green economy, sustainability*

JEL classification: *O1, O44, Q01*

Introduction

This approach has started from the main idea that between the goals of accelerated economic growth and theories of an equilibrated development - friendly with environment and resources, is a strong linkage. When this connection is disrupted by some controllable or uncontrollable influences, is almost normally to appear a specific phenomenon that can balance the situation and the economic crisis can be an appropriate example. This is not only very involved in the controversial relation economic growth - sustainable development, but it may be a “necessary bad”. By this paper, we propose to observe and analyze another face of economic crisis, the positive one, namely from the perspective of necessity to adapt the rhythm of economic growth to an equilibrated overall development. This approach is connected with the notice that the accelerated rhythm of growth is not totally in accordance with the objectives of sustainable development. The sustainability concept, that until now has remained mainly a theoretical approach, analyzed together with the reality of economic crisis, it can be considered as an inadequate relation for research, but we try to demonstrate that between these, sustainability and economic crisis, it exist a strong connection with reciprocal influence. In the same time, by this paper, we take into consideration the sustainability in a post-crisis context and we make an inventory research in order to identify the opinion and ideas related to new thinking and approaches developed after the financial crisis manifestation, 10 years ago. We consider that is time to view the positive face of the crisis. Even some authors discuss about the economic crisis as a negative, disruptive or a menacing phenomenon, we discover some very useful and interesting opinions that coincide with our idea according to some crises can contribute to a deep practical approach of sustainability concept.

Related to main issues on the economic crisis, we appreciate that this phenomenon is a reality facing to almost all countries of the world and, really, is a symptom of a much deeper problem of

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the economic system functioning. In our opinion, the real cause of the economic crisis is the too much concentration on the economic growth, based on the unbalanced consumption and production, without consideration of the overall effects, mainly on long term. In addition, we consider that the economic crisis is a face of the unsustainable development and is directly connected with the hiper-consumerism phenomenon perceived as one result of the orientation to unhealthy economic growth. One of its consequences is the accumulation of debts in future and that produces the crisis in economic or financial area, together with social negative effects. In this context is not very difficult to observe that exist some substantiated reasons to study in the same subject the economic crisis and the sustainable development, by an analysis of reciprocal influences and interaction - for that is not accepted too easy the positive face. Moreover, nowadays, the world economy is almost devastated by sudden changes, determined by phenomenon as specific crisis viewed in economic, financial, political, social and demographic, environmental areas. In this context, the main reasons that determine the occurrence of new patterns of economic development consist in: resilience to various crisis, strong deterioration of environment, depletion of resources and the real need of all area of life to become sustainable. This is one of explanation that the Europe 2020 Strategy considers and promotes the sustainable development one of the most important engines for a future health development.

Description of the Problem

The main ideas that encourage a new direction of research on the economic crisis together with sustainability are follows:

- the actual economic world and the modern society, too, are faced to a strong and complex process of rediscovering or reconfiguration, because the needs of evolution requires the adaptation to these new situations

- the economic crisis it can be proven an opportunity in order to ensure the access to the reality of sustainable development compared to theoretical approach

- the steady state economy is another sense of sustainable development, that promote only the equilibrated development and can be compared to the limits of the economic crisis

- the controversial *de-growth* concept is perceived as the most appropriate solutions for blocking or slowing down the nowadays rhythm of economic growth that is too much accelerated

- the *hiper-consumerism* is another phenomenon proven to be unfavourable not only in economic area, given the depletion of resources risk, but for the social and human positive evolution, too

The economic growth - that is not the sustainable development - represent the main goal off all economies, but some undesirable effects of very fast progress upshot of economic growth, are:

- depletion or alteration of vital resources involved in the economic and social development

- altering the population health or social qualities together with massive socio-demographic changes

- environmental changes combined with excessive pollution, biodiversity degradation etc.

In this regard is very important to remember and understand that ”since we live on a finite planet, with a limited supply of natural resources and a limited capacity to absorb wastes, it is not possible for the economy to grow forever” (Meadows, 1972). Thus, 40 years later, was developed the idea that the global financial crisis in 2008-2009 became multidimensional economic, social and environmental. Bozena (2014) explain that ”on the economic level effects of the crisis were a reduction of world GDP and volume of international trade, reducing investment and jobs creation and side effect of the crisis was a reduction of the level of well-being.” In this regard, an immediately reaction was from the part of international organization that developed the new programs and strategies for improvement of the future and for the restoration of crisis effects. It was a good opportunity to develop the reorientation to an overall sustainable development that includes the circular economy, the green economy and all macroeconomic preoccupations to reconsidering the resources for entire their cycle of life. (OECD, 2011). All these are considered from the perspective of ”second wave” of global economic crisis, when: ”The European Union definitely remains in deep recession, in an attempt to save what can be saved - euro, confidence in the common monetary system and economic community in general.” (Đukić, 2012). In addition,

Đukić discuss about the first wave of global crisis (2008 - 2010) which has required initiatives and efforts focused more to „green-economy“ or measures leading to sustainability.

Given that we find separately studies and researches about economic crisis and sustainable development, we propose by this paper to identify the connection between these two, but from the perspective that permit to demonstrate the positive effects and influences of crisis on the sustainable development. Even for the period immediately after crisis, in 2008-2009, it was presented only the negative face of the crisis, we consider that nowadays is possible to collect the favourable consequences. In addition, we propose to identify and to present the references on the both concepts, analyzed together, mainly bases on the relation causes-effects and future proposals in this regard.

Literature Review

According to Đukić (2012), ”the sustainable development means peace and co-operative conditions, but should not exclude the possibility of response to emergencies; moreover, the sustainable development is the characteristic of a social system that easily exceeds the emergency”. The same author consider that ”the global economic crisis has placed priority short-term goals such as output growth, investment and employment, and often the survival of entire national economies and regions, the monetary area and other communities”.

Recognized as a great promoter of the sustainability, both at theoretical and practical level, Lester Brown (1982) argues that “building an eco-economy represent the bigger historical investment opportunity. The companies with a new economic vision that included the environmental aspects in their plans of activities will be winners” while von Weizsacker, E., Lovins, A.B., Lovins, L.H. (1997) appreciate that the *4 Factor* is the theory according to the welfare it can double by halving the resources consumption, by 4 multiplying the resources productivity. This idea is continued and developed in other form in the opinion of Daniel W. O’Neill (2008) which argue with the idea of ”the abandon of economic goal for growth and begin the transition towards a steady state economy.” Some authors consider that the presence of economic crisis is a consequence of an irresponsible approach of economic growth: “it was an era of global prosperity. It was, also, en era of turbulences. But, where it was irresponsibility, now it must say: the era of irresponsibility it must end” said Brown, G. (2008). Other authors consider that is mandatory to pass toward a new approach of economic growth, because the overall economies and societies are in a full process of change. ”We live in non-linear times: the classic economic models and theories cannot be applied, and future development cannot be foreseen” (Trichet, J.C. 2009). About the favourable effects of the economic crisis, Mahler (2009) notes that “in the context of financial crisis observed in great damage of economic and business environment, the winners are green companies focusing on sustainable performance”.

This appropriate context permits us to highlight a new idea from the literature. According this, the transition to a new economy, named “economy after crisis” implied the development of green economy based mainly on recycling, clean technologies friendly with environment, using on a large scale the renewable energy sources, and, most important, changing the model of consumption in order to be efficient and sustainable. (Barbier, 2010). We are glad to find many similarities in the literature with our opinion and thinking related to strong requirement to adapt the rhythm of economic growth that now is too aggressive and with negative impacts on different areas (society, environment, resources conservation etc.). In this regard, Anbumozhi&Bauer (2010) discuss about the economic slowdown, stimulus packages, and green growth as solution to overcome the effects of economic crisis, but in the same time, they explain that the green recovery is not a panacea. As we supposed in our hypothesis, the economic crisis has actually opened a window on our future. (Homer Dixon, 2009) because ”the crisis is also an example of a more general and increasingly frequent phenomenon: a sudden shift in behaviour of a highly complex system critical to human well-being that is under extreme and steadily rising stress.” In the same line, we find that ”the economic crises never happen overnight and they are the results of years of global economic change, policy errors, and misjudgements” and ”the global financial crisis and the resulting economic slowdown may be assumed to have at least the benefit of also reducing environmental degradation in the individual countries (Anbumozhi and Bauer, 2010).

Methodology and Data Sources

The research approached by this paper, is prevalently empirical, based on qualitative analysis. By this, we propose to show another face of economic crisis and this is possible using the methods as content and exploratory-descriptive analysis. We focused on the documents analysis and interpretation, based on statistical data from the recognized and official database as Eurostat that permit us to proceed to the indicators analysis. The main indicators used are these specific for sustainable development and economic growth. Another basis of the research is represented by the bibliographical documentation and interpretation of specialized literature in relation with the continuous observation of the practical reality. The main work hypothesis is that the economic crisis is proven to have the positive effects given that it facilitates the achievement of sustainable development goals. Briefly, our methodological approach is focused on the exploratory research oriented to confirmation of the main hypothesis - that it exist the positive face of economic crisis in relation with the sustainable development goals - based on the other studies just conducted and on the indicators and statistical data. We admit a main limit of our research: the predominance of subjectivity that determines the difficulty to generalize the results of research. Mainly, our research is a systemic approach that follows a restricted diagnosis from the literature related to new opinion promoted: the sustainable development can be achieved if is taken into consideration the causes and effects of the financial crisis.

Results Obtained

Related to the practice of sustainable development, we consider that this consist in a set of economic, financial and social correlated systems that preserves and restores the ecosystems, the backbones of economic and social well-being. Essentially, the sustainable development is a branch of resources administration way. According to Wackernagel & Rees (2000) the poles of sustainability are supported by ecological stability and reduction of ecological footprint. Moreover, it must insist very much on the quality life assurance for all peoples, as mean of long term sustainability facilitation. Without health and responsible peoples will be not possible to guarantee the reality of sustainable development and is being create the context of economic and financial crisis appearance and manifestation. Giovanetti (2010) explain us that the Bruntland Report definition is wrong from the start, because *we don't know today the needs and desires of future generations*. So, the sustainable development is a possible solution of the nowadays similar with *steady-state* or *zero growth* concepts. At political and instrumental levels, the sustainable development is concentrated in many strategies and measures, and we observed the efforts and investments in different directions dedicated to sustainability achievement. This implies decoupling the economic growth from the use of resources, support the shift towards a low carbon economy, increase the use of renewable energy sources, modernize the transport sector and promote energy efficiency and the crisis made us aware that "business as usual" is not possible anymore. (Bozena, 2014)

In this manner, we have created a specific context to express the linkage existence between economic crisis and sustainable development. The experts consider that to solve the economic crisis is need to make some actions and reorientations as:

- creation of the new ways of thinking about the real sustainable development, such as the actions and activities of circular economy based on reconsidering and recycling the wastes

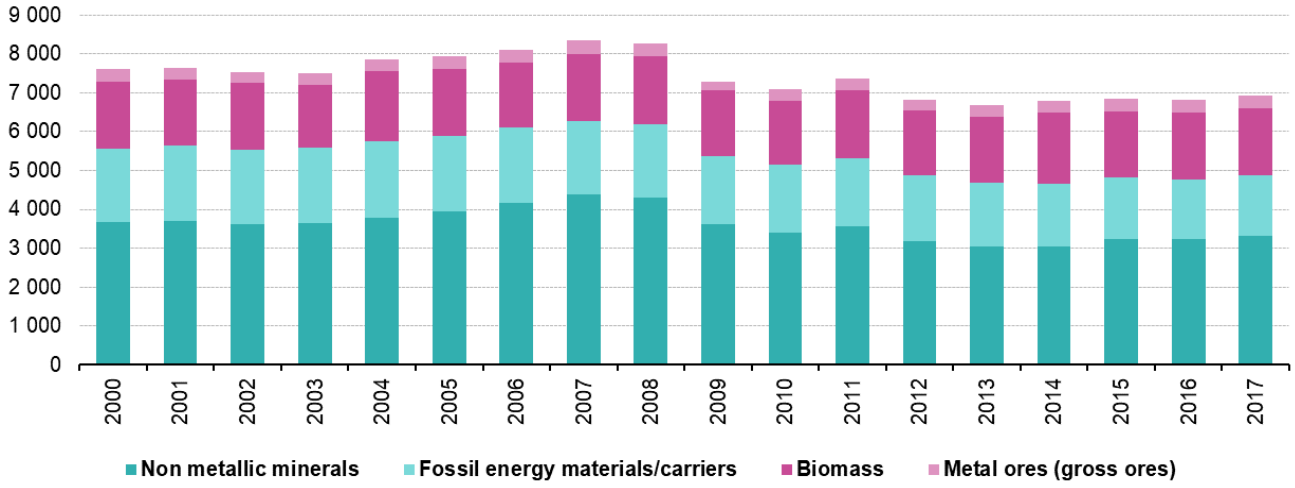
- a green energy revolution expressed in new ideas and actions of small business

- re-evaluation of financial approach meaning that when it is appreciate the progress of economy and society is not enough to consider only the financial indicators; in this regard it was a reality that the GDP growth does not absolve the presence of economic crisis

After the crisis from 2007-2008 period, Anbumozhi, V. & Bauer, A. (2010) said: "the global financial crisis and the resulting economic slowdown may be assumed to have at least the benefit of also reducing environmental degradation in the individual countries". In this regard, is not very difficult to conclude that, a positive part of economic crisis, really exist. Although seemingly rough, we consider the economic and financial crisis is a good lesson or an adequate manner designed to educate the population and economies as a whole related to position and action toward consumption. In other words, we consider that the limitations deduced from the financial crisis determine a high level of attention for the manner of consumption, so is possible to increase the

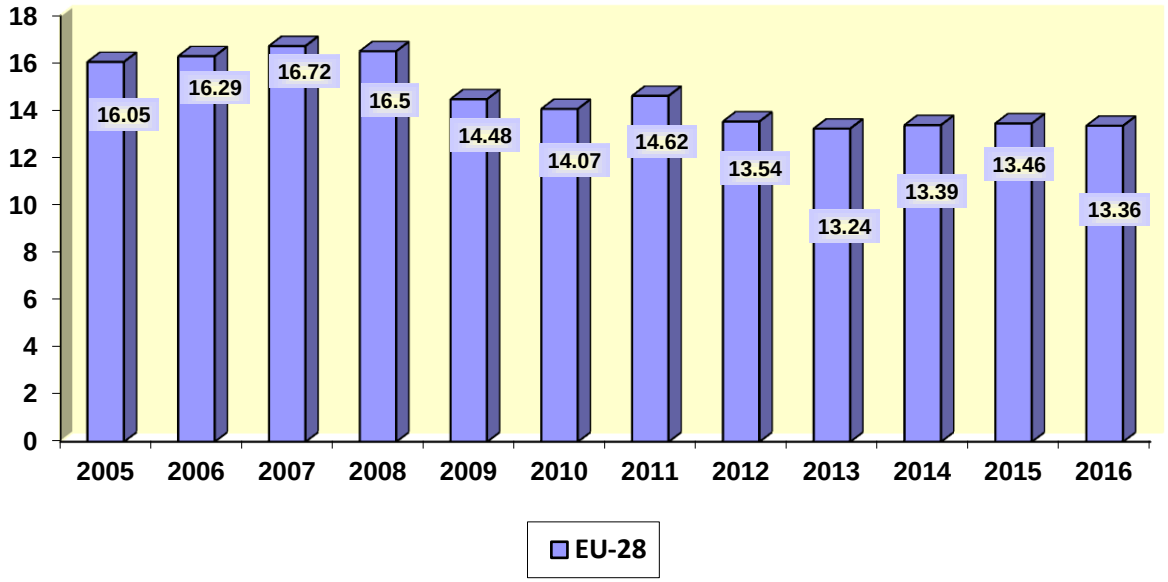
efficiency. The Figure no.1 and Figure no.2 support this opinion, by data according to Eurostat (2016 and 2017 are provisional data).

Figure 1. Domestic material consumption by material (DMC), EU-28 for 2000-2017 (million tonnes)



Source: Eurostat. Statistic explained - online data from page https://ec.europa.eu/eurostat/statistics- 2017

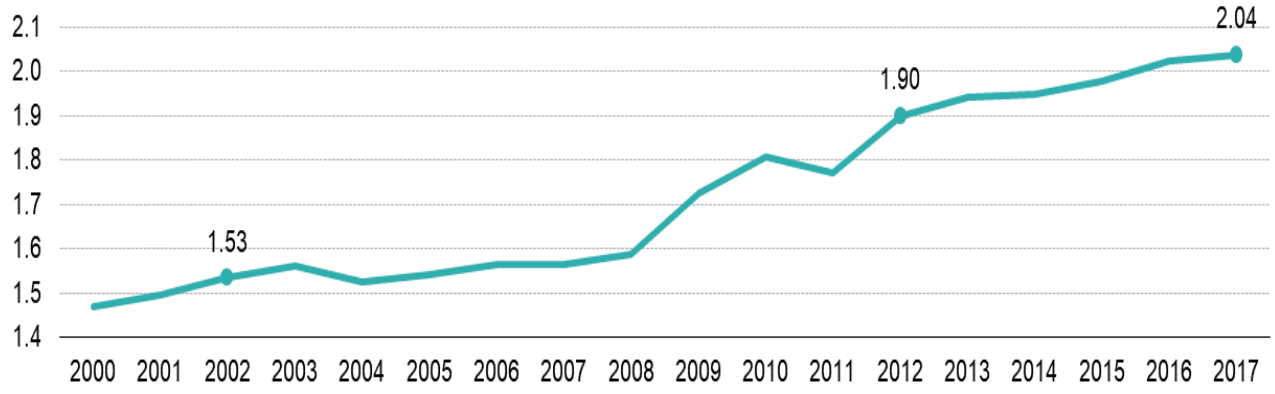
Figure 2. Domestic material consumption per capita, EU-28 for 2005-2016 (tonnes per capita)



Source: Eurostat. Statistic explained - online data from page https://ec.europa.eu/eurostat/statistics- 2017

The Figure no. 1 and Figure no. 2 show as that just in the period when the effects of crisis were deeply felt, the level of domestic material consumption has decreased and it rest at the times of crisis level until now. This is perceived as a transition from the undesirable effects of crisis to the steps toward sustainability. We mention that these two indicators were selected because include a common subject for sustainable development and economic crisis, too. After 2005 year, DMC in the EU fell by 0.5 % on average per year and after 2012, DMC has increased by 0.3 % per year on average, following the economic recovery. To complete the image of connection between sustainable development and economic crisis, in the Figure no. 3, based on the consumption values, is represented the evolution of resources productivity indicator for the last 17 years in EU-28.

Figure 3. Resource productivity, EU-28, 200-2017 (Euro/kg.)



Source: Eurostat. Statistic explained - online data from page https://ec.europa.eu/eurostat/statistics- 2017

According to evolution of data presented and of the Eurostat explanation, the resource productivity (GDP divided by DMC) EU has become more productive in its material use since 2000. For 2002 - 2017 period, the EU's resource productivity rose by an average of 1.9 % per year and for 2012 - 2017, the productivity gains slowed down slightly, with an average growth of 1.4 % per year. More important is that the EU material demand has declined since the onset of the economic crisis in 2008.

In this context, is fundamental to refer at The Europe 2020 Strategy (2010) that has set the follows mains priorities:

1. *Smart growth*: developing an economy based on knowledge and innovation
2. *Sustainable growth*: promoting a more resource efficient, greener and more competitive economy
3. *Inclusive growth*: fostering a high-employment economy delivering social and territorial cohesion

As the perspectives perceived for the favourable connection between sustainable development desire and the economic crisis reality, we estimate that in the near future, the business oriented to wastes capitalization will benefit by a real opportunity because 75% of resources required in industry and production, aren't find in soil, but at surface, on waste form. The companies more focused on sustainable development will exit from the crisis stronger than those unfocused on sustainability; in terms of the Dow Jones Sustainability Index, in the period of financial crisis, the green enterprises registered better results. With this, we develop the idea of the existence of some advantages deduced from the financial and economic crisis, such as:

- reduction of the resources consumption

- higher attention to the environmental protection and resources conservation

- development of economic spirit on the population level, not only of companies

Moreover, according to Lerner (2014) cited in Campelo (2017), there are some fundamental issues that bring good quality of life as part of sustainability achievement and overcoming the negative impact of economic crisis: effectiveness and good productivity of resources, optimal and less consumption at macroeconomic and individual level, using energy efficient materials, recycling, prioritizing public transportation, ensuring social cohesion etc.

Conclusions

Based on the information and data according to between economic crisis and sustainable development is a directly linkage, that can be exploited in positive manner, we consider that is need to stop the criticism opposite of the crisis idea. After 10 years after last crisis manifestation, we can see the new orientation to the sustainability goals, to the new forms of economies, friendlier with the environment and more careful with the resources and consumption. In addition, a very new and modern form of economy, circular economy, is prepared to be received at the large level of European countries. The reorganization of economy world supposes the cooperation between economists, ecologists and other specialists, in order to identify the directions to follow for provide

a sustainable development. In the new economic culture, the growth and development have different meanings, and to reconsider the zero growth theory, can be proven practical solutions to get out of financial crisis. Very important is that not always the economic crisis determines only the negative effects. In fact, the real problem of nowadays, is not the economic or financial crisis, but is the unbalanced consumption of resources and the hiper-consumerism phenomenon. We invoke the principle according to too much is not always too good. The key words in the crisis time are: maximum prudence and speculation of opportunities. The recession can arouse damage or even bankruptcy, but can open news domains of investment, unexploited until now. The sectors with minimum risk in the time of economic crisis: food industry, tourism, services, pharmaceuticals, commerce with second-hand products and reconditioned furniture, too. Moreover, the current socio-economic world attends to a complex process of major reorientation in terms of image of future development and is not difficult to observe some effects of these changes on the environment with all its factors. In the same time, we assist to a new state of relation between production and consumption of goods. This circular process implies the using of natural resources, as a basis for the economic production processes. In this case, appears some strong signals about how many sustainable is the actual way of development. On the hand, the representatives of economic world discuss about the danger of economic crisis and, on the other hand, the representatives of environment discuss about the crisis of natural resources. Both are interested to protect the society, to improve the life quality and to ensure the better living conditions. So, between economic crisis and sustainable development is a strong connection with reciprocal influence. Because the economy is a subsystem of the environment, in the circle of production and consumption process, the economic inputs comes from environment and, finally, all resulted wastes return on the environment. Since we live on a finite planet, with a limited supply of natural resources and a limited capacity to absorb wastes, is not possible for the economy to grow forever. A consequence of the irrational insistence is the economic crisis. Nevertheless, is a deep distance between theory and practice of sustainable development.

The identification of sustainable development approaches in the literature has involved numerous and detailed research, but in an uncertain field, and a very high volume of work. The limits of the paper: utilization only the recognized databases, the reference to the authors only from some developed countries, the generalized grouping of the sub-domains of this concept etc. For these reasons, we propose to extend the future research to a deeper level, and we will focus more on the causes of discrepancies between theory and practice.

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SUSTAINABILITY OF THE PUBLIC PENSION SYSTEM IN ROMANIA. PROSPECTIVE EVALUATIONS AND ALTERNATIVES

Sorinel Ionel BUCUR[53]

Abstract

The present approach intends to make an empirical analysis of the public pension system in Romania for the period 2007-2017 and of the current alternative systems, as well as to anticipate their evolution in the next 20 years in terms of economic and social sustainability at national level.

Key words*: sustainability, public pension system, alternative pension systems.*

JEL Classification*: D14, E24, G23.*

Introduction

The pension system issue in Romania has been a topic of debates over time, both in terms of how to create and allocate the necessary financial resources, and mainly in terms of its sustainability. Without intending a review of the main changes in the legal framework for the pension system, we shall try to present a few aspects regarding the evolution of the Romanian pension system in the post-accession period, in terms of monthly average pension, employees/pensioners ratio, as well as compared to pension systems in the other EU member states, in the context of the recent legislative proposal to amend the pension law and of the durability and sustainability of the social protection system for this segment.

Methodological considerations

From the methodological point of view, the present study is based on public information supplied by national statistics, through Tempo-Online database, as well as by EU statistics (Eurostat). In order to capture the main evolutions of the pension system, the results are presented mainly under table form, using statistical methods dedicated to comparison and dynamics.

We must specify that in the case of value indicators, for data comparability, these were transformed into euro, using the average annual exchange rate of the National Bank of Romania (NRB).

Results and discussions

Social security represents a set of mandatory norms providing monetary assistance for old age, illness or accident for people who are subject to a legal employment relationship or to other categories of persons prescribed by law, as well as to their heirs.

According to the current legal framework[54], in Romania, the social security right is guaranteed by the state and is exercised through the public pension system and other social security rights. Compared to the other EU member states, for which statistical data are available at EU level, in the year 2015, Romania ranked 16th in the 27 member states[55], with pension expenditure worth 12978.81 mil. euro, up by about 62% compared to 2007.

Compared to the EU average of 68329.03 mil. euro, the pension expenditure budget of Romania is about 5 times lower, the first positions being occupied by Germany, France and Great Britain, whose cumulated budget accounts for 46.5% of the total budget allocated to pensions in the Community (Table no. 1).

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[54] *Law 263/2010 on the unitary public pension system, with subsequent amendments and completions.*

[55] *Except for Poland, for which no statistical information is available*

Table 1. Evolution of pension expenditure in the EU member states in the period 2007-2015 (mil.euro)

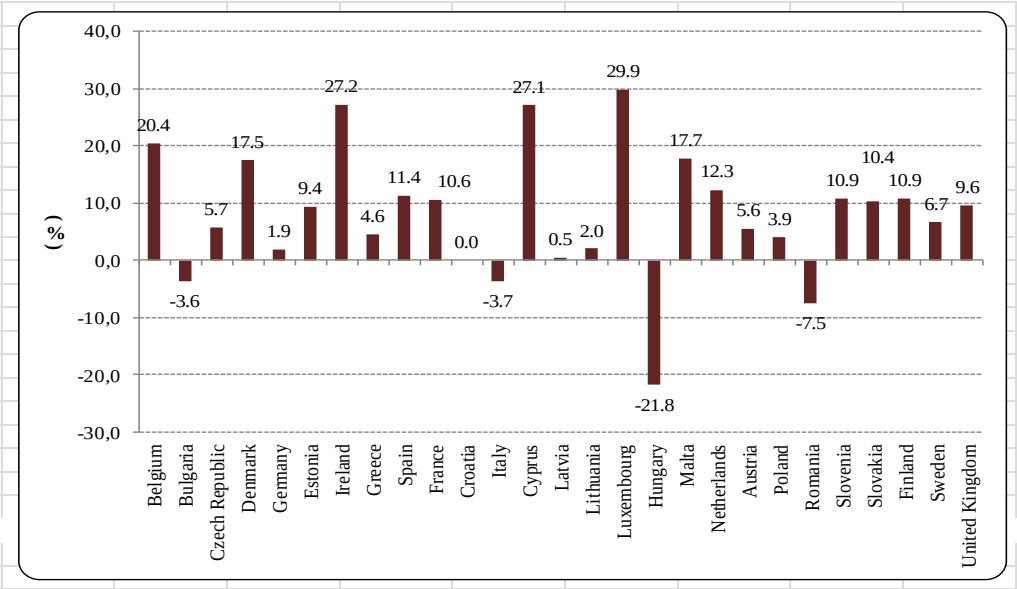
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Belgium	35705	38986	41140	42781	45261	46078	48280	49669	52010
Bulgaria	2109	2487	3075	3313	3365	3387	3610	3758	3905
Czech Republic	10468	12586	12897	13836	15034	15069	14738	14052	14571
Denmark	27335	28202	30061	30571	31602	32418	34743	37131	36749
Germany	302526	307492	314471	319889	322665	329506	335268	345117	358589
Estonia	927	1145	1253	1284	1298	1361	1430	1510	1660
Ireland	11217	12154	13006	13047	12985	13695	13985	13975	14354
Greece	28584	31798	33943	33485	33965	33783	30152	30644	31307
Spain	97207	102936	108719	113984	118358	122563	128866	132385	136337
France	254093	265885	276402	286242	298267	308489	318081	324820	330162
Croatia	:	4481	4651	4751	4651	4650	4738	4736	4769
Italy	225193	233935	243081	248679	254405	259934	265534	267631	271954
Cyprus	1051	1166	1240	1440	1559	1675	1773	1853	1917
Latvia	1116	1380	1563	1803	1746	1818	1863	1860	1881
Lithuania	1891	2397	2551	2368	2373	2526	2525	2544	2558
Luxemburg	3090	3274	3535	3681	3954	4221	4450	4624	4837
Hungary	10465	11619	10188	10582	10933	9284	9589	9441	9637
Malta	494	532	564	621	619	661	674	698	721
Netherlands	70336	72539	75492	78003	81579	84219	86464	88320	89649
Austria	37598	39480	41224	42773	44073	45941	47626	49254	50242
Portugal	21342	22709	23798	24565	25282	24466	26693	26984	26855
Romania	8039	10632	11121	11736	12066	11563	11963	12371	12979
Slovenia	3369	3591	3857	3996	4132	4088	4187	4200	4224
Slovakia	3983	4615	5324	5551	5730	6000	6249	6608	6793
Finland	19335	20052	21781	22812	23621	25027	26454	27489	27548
Sweden	38681	39968	38383	42771	46171	49837	52896	50765	51189
Great Britain	220511	201398	192748	209258	214329	242292	236118	259635	297488

Source: Eurostat, 2018.

In is true that pension expenditure essentially depends on the number of pensioners and age of retirement, as well as on the programs dedicated by each member state for maintaining in employment the people who, although have reached the age of retirement, can remain in employment under certain conditions.

As regards the number of pensioners, in the year 2015, in Romania, this decreased by 7.5% as compared to 2007, which is a similar situation to that of Bulgaria (3.6%), Italy (3.7%) and Hungary (21.7%). Except for these four member states, in the remaining member states, the period 2007-2015 is characterized by a noticeable increasing trend of the number of pensioners by percentages ranging from 0.5% (Latvia) to 30% (Luxemburg) (Figure 1).

Figure 1. Dynamics of the number of pensioners in the EU in the year 2015 as compared to 2007 (%)



Source: Calculations based on Eurostat data, 2018.

Pension expenditure in Romania accounted for 8.1% in GDP in 2015, placing our country on the 22nd position among the 27 EU member states; only Estonia, Latvia, Malta, Lithuania and Ireland were below this level. At the opposite pole, with a pension budget of over 13% of GDP, we can find 8 member states, with an oscillation margin ranging from 13% (Netherlands) to 17.8% (Greece).

We must mention that in the period 2007-2015, the budget allocated to the pension system, as share of GDP, increased by 28.6% in Romania, i.e. from 6.3% (2007) to 8.1% (2017). Out of the 27 member states for which statistical information is available, as share of GDP, the most significant increase was found in Cyprus (80%), followed by Latvia, Greece, Spain and Estonia, with percentages ranging from 40% to 58%. It is true that these countries had the lowest shares of GDP allocated to pension expenditure, yet the significant increasing trend is due to the increase of the number of pensioners and of the average pension.

As we have mentioned before, the development by the state institutions of programs to support the maintaining in employment of persons who have reached the retirement age, or raising the retirement age, resulted in the diminution of the share of pension expenditure in GDP by percentages ranging from 1.7% (Germany) to 14.7% (Hungary).

Going down with our analysis from EU level to the national level, it should be noted that in Romania, the many changes in the legal framework for pensions in the last 27 years generated significant dysfunctions in terms of the value of pension and mainly of the system sustainability.

In Romania, the pension system is structured into 3 pension pillars, namely:

- *Pillar I* – Public pension system;
- *Pillar II* – Privately managed compulsory pension system, regulated by Law no. 411/2004 on the privately managed pension funds, with subsequent amendments and completions;
- *Pillar III* – Privately managed facultative pension system, regulated by Law no. 204/2006 on facultative pensions, with subsequent amendments and completions.

The non-correlation of wage policy with labour productivity, the inefficiency of social protection measures and the increase of pensions based mainly of subjective criteria, resulted in an inefficient public pension system both in terms of the formation and collection of due contributions and mainly of their distribution by categories of pensions.

Without analyzing the principles that the current legal framework provides in the organization and functioning of the public pension system in Romania (uniqueness, obligativity, contributiveness, equality, distribution, social solidarity, autonomy, imprescriptibility and non-transferability), it should

be noted that in the period 2007-2017, in Romania, the pressure on the labour force has been significant, the number of pensioners / number of employees ratio being still larger than one.

Practically, this ratio evolved from 1.2 pensioners / employee in the year 2007 to 1.1 pensioners/employee at present. In this context, the evolution of the monthly average pension level is also worth mentioning. Thus, still far away from the EU average, the average level of the monthly pension increased over 11 years from 116.6 euro (2007, current prices) to 234 euro (2017, current prices) (Table no. 2).

Table 2. Evolution of average monthly pension, of the number of pensioners and employees in Romania, in the period 2007-2017

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017/ 2007 (%)
Average monthly pension (euro, current prices)	116.6	155.3	161.7	170.1	177.7	173.5	182.2	190.3	200.7	211.1	234	100.8
Number of pensioners (thou.)	5745	5701	5689	5675	5589	5487	5410	5357	5306	5257	5228	-9.0
Average number of employees (thou.)	4885	5046	4774	4376	4349	4443	4444	4508	4611	4759	4946	1.2

Source: calculations based on Tempo Online database, 2018.

The pension system sustainability must be ensured by implementing certain specific measures, which should take into account mainly the economic evolution, the diminution of pressure on labour force, as well as their social impact.

Studies conducted to date[56] have attempted to make long-term demographic developments in the context of ensuring the long-term sustainability of the Romanian pension system.

From this perspective, it is worth mentioning that, according to the forecasts made, in the year 2040, the total population of Romania will be 20.3 million inhabitants, in a noticeable downward trend compared to 2007.

The same decreasing trend will be the other demographic indicators, namely the rate of economic dependence, the employed population or the fertility rate, with the opposite pole increasing the life expectancy.

Starting from the projection of both demographic and economic indicators, a simulation of public pension system expenditures was attempted up to the level of 2060. These projections were based on the Pension Reform Options Simulation Toolkit (PROST) model, which based on the methodology provided the ESSPROS (European System of Integrated Social Protection Statistics) and the variables taken into account (demographic, economic and pension-related variables) led to the following levels of pension expenditure (Table no. 3).

Table 3. Projections of the expediture with the public pensions (mld.euro)

	2020	2030	2040
Gross expenses with public pensions	9.21	10.25	11.63
Net expenses with public pensions	8.75	9.74	11.05
Contributions to public pensions	8.07	9.66	11.13

Source: *Long-term demographic change and sustainability of the pension system*

Last but not least, the public pension system should be reconsidered and grounded not on political, but on economic and efficiency arguments, also in the context of the existence of the other two essential pillars in the sector.

Practically, the political risk in building a sustainable pension system remains one of the most important determinants of the financial difficulties in the pension system. This is the case, for instance, of Pillar II of private compulsory pensions, which was considered a solution for solving up an important part of the social security budget imbalances.

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[56] *Romanian Government, National Commission for Prognosis: „Long-term demographic change and sustainability of the pension system", Project cofinanced from Social European Fund, Operational Program "Development of administrative capacity".*

In the context of the above-mentioned facts, the current draft pension law proposes the removal of the inequities between the beneficiaries of the system, i.e. between genders and for each type of gender, as well as between categories of persons who worked under the same working conditions and with a relatively similar level of pay, irrespective of the year of retirement. Practically, the state actions, through the reforms in the field of pensions, must contribute to the unequal distribution of the economic costs of reforms between different groups.

Conclusions

As part of the pension system, the public pension system in Romania is still facing a lot of problems, generated by the inefficient management of existing resources, both in terms of the way in which these are constituted and especially in their distribution over the main types of pensions.

In the context in which the essential resource in building the pension budget is represented by the social contribution collected from the labour force, the pension policy should be strictly correlated to the employment policy and to the social policy. The provision of social benefits as they have been provided until recently will not have the effect of encouraging employment and attracting additional funds to the pension budget, but will instead stimulate unemployment, with a negative impact upon the level of current pensions or of future pensions.

Without denying the need for a social support policy addressed to certain persons in difficulty, the budget allocated to social protection and to pensions implicitly must be reconsidered on sustainable basis, also in terms of implementing certain measures meant to stimulate employment even after the standard age of retirement.

Correlating the implementation of the social protection measures to those of economic nature and removing as much as possible the influence of subjective external factors (mainly political) will result in a better collection of the related contributions to the social security budget, the allocation of funds being necessary to be achieved in a fair manner between all types of pensions.

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OIL INDUSTRY IN ROMANIA IN THE PERIOD 1918-1948 BETWEEN DOMESTIC AND FOREIGN CAPITAL

Marius BULEARCĂ[57]

Abstract

The development of the Romanian oil industry covers a relatively short period of only 160 years, but the interest that oil has produced has been and still remains enormous. The influx of foreign capital in the Romanian oil industry has undoubtedly contributed to its development, but foreign capitals have monopolized almost all the oil industry in the country. Romania has experienced the consequences of this situation, which has marked the future general development of the country. The year 1947, or "the final year of the Romanian oil industry based on private capital", did not complete the period of restoration, despite the aggressive intervention of the communist power. The nationalization of the Romanian and foreign oil companies from June 11, 1948, made the first step towards the absolute management and control of the Romanian oil industry, the clear signal of Romania's political and economic isolation, with all its consequences, at least until 1964.

Keywords: *oil industry, domestic and foreign capital, oil and petroleum products trade, the oil law*

JEL classification: *Q35, N50, K11*

Introduction

The development of the Romanian oil industry covers a relatively short period of only 160 years, compared to iron, copper, silver, gold or salt mining, for which evidence has been found since ancient times. However, the interest that oil was given has been and still remains enormous.

The influx of foreign capital in the Romanian oil industry has undoubtedly contributed to its development[58]. The role of foreign capital was positive in the beginning of modern industrialization of Romanian crude oil exploitation, i.e. at the confluence of the nineteenth and twentieth centuries. Then the economic development of the country requested, among other things, the immediate capitalization of petroleum resources, which was impossible to achieve only through the activity of local capital, insufficiently quantitative and lacking entrepreneurial spirit.

Oil extraction and the creation of a competitive industry with that of other producing countries also required large amounts of capital that could only be bought across the border. At the same time, it should be underlined that in a short time (10-15 years) foreign capitals have monopolized almost all the oil industry in the country. Romania has experienced the consequences of this situation, which has marked the future general development of the country.

At the time of the outbreak of WW1[59], in country's oil industry were invested capitals of 11 different originated nationalities: German, English, Dutch, French, American, Belgian, Austro-Hungarian, Italian, Swedish and Romanian"[60].

1. The legal framework

In the second half of the nineteenth century, mining wealth (including oil) gained more attention, given their role, which could never be neglected, in the economic development of the modern Romanian state. From now on, they have been the subject of special legislation - mining laws. It is significant that in the second half of the nineteenth century were submitted to the Parliament in

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[58] *Octav Constantinescu, 'Contribution of foreign capital to the Romanian petroleum industry', Bucharest, 1937, pp. 57-59; T. Savin, 'Foreign Capital in Romania', Bucharest, Eminescu Publishing House, 1947, p. 45.*

[59] *The First World War.*

[60] *According to Tancred Constantinescu, 'Reason for Mines Law', in "The Mines Law with Explanatory Memorandum", Bucharest, Imprimeria de Stat, 1924, p. 135.*

Bucharest no less than six draft mining laws, in 1863, 1870, 1873, 1881, 1886 and 1895[61]. Of these, only one project - drafted by the conservative Minister P.P. Carp in 1895 - got to life. This project has a triple significance: it became the first mining law in Romania, introduced an important mining property reform, and finally inaugurated a state policy in the field of mining industry[62].

Within the mining laws, oil has played an increasingly important role, in direct relation to the increase in its significance in the modern age. Thus, first, the stipulations relating to oil were briefed in some articles of the law in 1895. Then there have been developed specific oil laws or have been granted a clear preponderance in the mining laws. This is the case with the laws of 1924, 1929 and 1937 which, although called "Mines Laws", were, by excellence, “Oil Laws”.

Overall, until 1918, the Romanian state has managed to retain the largest part of its oilfields, an important prerequisite for promoting an adequate liquid fuel policy and avoiding the country's transformation into a battlefield for the international trusts (like Mexico or Persia). At the same time, however, the Romanian State, showing a "culpable passivity"[63], did not intervene promptly to repeal oil property regime introduced in 1895. This facilitated trusts offensive in Romania on private oil fields, a domain our country reached before 1914 as "a factual situation similar to colonies"[64].

Regarding the relationships established between Romania and the oil trusts, it should be noted that our country did not enter into direct conflict with the powerful foreign companies, although the actions of the latter proved several times to be damaging to national interests. Until 1918, Romania showed an attitude of "neutrality" to international trusts, only reacting to their tendencies to seize the oil fields of the State[65]. That was of greatest significance as Romania gained thus the ability to regulate later, in 1924, the issue of oil States’ resources exploitation, considerably strengthened by the nationalization of mining subsoil in 1923, in conditions undeniably more favorable to its own interests than if, at the Paris Peace Conference, had satisfied its allies' claims.

The importance of nationalization of the mining subsoil has also been underlined by the viability of the reform. Mining subsoil regime introduced in1923, was subsequently maintained by all ordinary or fundamental laws. Besides noted positive elements, consequences of mining subsoil nationalization in 1923 were less profound in practice. With regard to oil, the conflict broke out between the foreign and the domestic capitals, manifested in 1923, when the reform of the mining subsoil nationalization was carried out. It culminated in the period 1923-1924 during the elaboration and adoption of the new Mines Law which had to implement the principle of nationalization of the mining subsoil and to establish the rules for the capitalization of natural riches. The Government has introduced into the law some regulations favoring national oil companies, which triggered a strong reaction from foreign capitalists[66].

The Mines Law of 1924 was one of the most complete and modern laws in the field, which strengthened the Romanian economy, opening a wide path to the development of domestic capitalism. The law has given special importance to the rational exploitation and capitalization of oil, the country's main mineral resource, and is rightly called the "Oil Law". Thus, the chapters of the law regulate all the technical, economic and social aspects related to highlighting, exploration, exploitation and valorization of mineral resources of the country for its national interest.

If the Romanian Government got positive solution with the Great Powers regarding the Mines Law in 1924, this was impossible when the two global oil trusts, Standard Oil Co. and Royal Dutch-Shell, did not accept the regulations of the new mining regime at any time (Pearton, 1971) and, as

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[61] According to I.G. Vântu, ‘The Mining Fields Ownership in Romania’, Bucharest, "Mârvan" Institute, 1938, p. 10 ; N.I. Moruzi, ‘The legal regime of the mines in Romania’ (Loi des Mines de 1924), Paris, Jouve et C-ie, Éditeurs, 1926, p. G.G. Anagnoste, ‘Mining Legislation and Romanian Petroleum’, Ploieşti, Tip. "Aurora", p. 15.

[62] M. Plătăreanu, ‘Economic and Social Policy of Romania in the Past and Current Legislation’, pp. 169-170.

[63] According to I.N. Angelescu, ‘Report on the draft law on the trade of petroleum products in Romania’, in “The debates of the Deputies Assembly” (sitting of 28.III.1921, p.1570).

[64] Ibidem.

[65] Ibidem.

[66] Some assessments of the mining legislation of 1924 were presented in the following studies: S. Mihail, ‘The Character and the Trace of the Mines Law of 1924’, in "Studies on the Economic History of Romania", I, Bucharest, 1960; Gh. Buzatu, ‘Some aspects of the fight for Romanian oil’ (Mines Law of 1924), passim; idem, ‘The place of oil problem ...’, passim;idem, ‘Romania and the oil trusts ...’, p. 143 et seq.

long as it applied, they would not cease the struggle to obtain its abrogation. But the key reason that prompted the Maniu Government to fundamentally modify the 1924 Mines Law was the Royal Dutch-Shell international oil trust's intervention, in particular. There was no doubt that, by resorting to the modification of the 1924 Mines Law, the national-peasant Government acted at the request or under the pressure of the most powerful international oil companies.

In January 1929, there were already recorded the practical measures for Maniu Government to change the law of 1924 (Buzatu, 1998, p. 263). The new law, for the "modification of the Mines Law of 4 July 1924", was promulgated by Royal Decree no. 971 of 1929 and published in the "Official Gazette" of March 28, 1929. Indeed, developed in accordance with the *"opened gates"* economic doctrine taught consistently by the National Peasant Party, the Mines Law of 1929 abandoned the core principles enshrined in oil policy program adopted by the Liberals five years earlier. Thus, this new amending law no longer retained the old regulations regarding the encouragement of the national capital (art.32-33), the ones related to determining the preponderance of the Romanian element in the governing bodies of the oil companies in the country, etc. According to the *opened gates* doctrine, the legislator body from 1929 established the fullest equality of treatment between foreign and domestic capital, resulted in art. 30 that stipulated: "The concessions may be granted *to companies of any kind, Romanian and foreign* (our underline), who fulfill the forms required by the Romanian laws, as well as legal persons of any kind"[67].

Later, like the previous Mines Laws (from 1895, 1924 or 1929), the law of March 1937 was eminently concerned with the issue of liquid fuel. It was not a coincidence, therefore, that it had preceded another one, released in 1942, which was to be an *Oil Law*. However, the preparations for the elaboration and promulgation of the new law, which was to be exclusive of oil, were prolonged until the summer of 1942 (Pearton, 1971). The Oil Law[68] - as observed[69] - indisputably gave advantage to companies with Romanian capital (Article 96 - granting exploitation rights on mining exploitable properties); in fact, Title XI (Various regulations), Chapter IV bared this heading: *Encouraging companies with Romanian capital* (Art. 269)[70]. Developed after the outbreak of WW2[71] and Romania's entry into war on the part of Nazi Germany, under the pressure of increasing demand for oil for the German army, the new law laid down the rules to be applied to the valuation of solid and liquid bituminous deposits throughout the country, except for the land for which the State or individuals have granted exploration rights prior to this law. So, the goal of the new law was essentially increasing the production of crude oil in the country to meet the German army's increasing fuel demands and reduce sabotage.

2. The period 1918-1939 (the interwar period)

After the end of WW1, for the ruling authorities in Bucharest it became as clear as possible that Romania could no longer dispense in the future of approving an appropriate program in the field of oil policy. The imperatives that led to this conclusion were added to the conviction that a foreseeable policy, appropriate to the great national interests, could be successful, despite the

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[67] "Official Gazette", no. 71/1929, p. 2460; C. Hamangiu, 'General Code of Romania', 1929, Bucharest, p. 290 et seq.

[68] The text contained 293 articles, arranged in several sections (headings): General regulations (I, 1-5), Prospecting (II, 6-11), Exploration (III, 12-60) (IV, 61-90), Exploitation (V, 91-119), Exploitation of oil deposits (VI, 120-165), Gas fields (VII, 166-178), Processing and marketing of gas, oil and its derivatives (IX, 192-214), the National Petroleum Institute (X, 215-231), Various regulations (XI, 232-293).

[69] A. Simion, 'Political and Diplomatic Preliminaries …', pp. 158-159.

[70] We recall from this article paragraph I: "In order to stimulate the participation of Romanian capital in petroleum exploitation and to encourage the grouping of existing Romanian companies, the State grants to existing or established enterprises, which will have a minimum capital of 400,000,000 lei in nominative shares, owned by 75% of ethnic Romanians - natural persons or anonymous companies, having 75% shares or shares held by ethnic Romanians, individuals - and whose chairman, board of directors, steering committee and committees censors will be composed of ethnic Romanians, in the same proportion"; that gave a number of advantages (tolls reduction, royalties reduction, tax reduction, exemption from tax on dividends, tax exemptions up to 500,000,000 lei, money loans, tax exemptions of the 0.5% tax on new shares). See: C. Hamangiu, 'General Code of Romania ...', XXX/III, 1942, p. 2547; comments on these regulations, in Maurice Pearton, 'Oil and the Romanian State', Oxford, Clarendon Press, 1971, pp. 241-242.

[71] The Second World War.

opposition of international trusts that was easy to see. This was because, unlike the situation before the war, Romania reunited after 1918 and the local bourgeoisie consolidated positions offered hope, if not certainty, for the successful completion of a positive program on liquid fuel. The approach of the oil policy program resulted from the interaction of multiple factors, which had a more or less important role.

In January 1918, the "Societatea Naţională de Petrol"[72] was founded by a group of engineers and geologists supported by "Creditul Minier" Society, with the participation of several banks. By adopting the liberal slogan *"through ourselves"*, "Creditul Minier", which dealt with the exploitation and processing of crude oil, later became a company with exclusively Romanian capital and managed to build in 1934 one of the most modern refineries from the country and abroad, namely the Brazi refinery, which, modernized, operates at competitive parameters at present (Ivănuş, 2008).

Also, "Creditul Minier", along with other banks, founded "Industria Română de Petrol"[73] (IRDP) Society in June 1920, designed to concession land, to secure the monopoly on exports, the exploitation of oil fields and pipelines (to Giurgiu and Constanţa) and to ensure sales on the domestic market. The establishment of this society by a group of Romanian businessmen, under liberal protection, meant the beginning of the re-launch of the Romanian capital in the Romanian oil industry.

In this respect, it should be noted that at the end of 1920, the German and Austro-Hungarian capital was completely eliminated in the oil industry and the Romanian capital controlled six large oil companies, which accounted for 30% of the total volume of exported goods. The main companies with foreign capital were: "Astra Română", with Dutch and English capital, and "Româno-Americană" with American capital. Thus, during the first part of the interwar period, Romanian, foreign and mixed capital was distributed as follows (Table 1).

Table 1. Capital structure in the Romanian oil industry, between 1925 and 1928 (%)

Nature of the capital	1925	1926	1927	1928
National	30.6	28.4	27.2	24.5
Foreigner	40.1	35.0	34.9	41.5
Mixed	29.3	36.6	37.9	34.0

Source: Buliga et.al., 2014, p. 447.

Ten years later, the Report of the National Bank of Romania's Sixth Commission again took into account the nature of the capital in the oil industry. According to the Commission's data, the predominance of foreign capital was indisputable (Table 2), either in terms of the value of the investments or the value of the output:

Table 2. Capital Structure in the Romanian oil industry in 1937

Indicator	Capital (lei) / Production (tons)	Weight (%)
Foreign capital	7,281,568,000	72.92
Romanian capital	1,460,403,000	14.63
Mixed capital	1,243,710,000	12.45
Production of foreign companies	6,054,895	86.73
Production of Romanian companies	743,533	10.66
Production of mixed capital companies	182,572	2.61

Source: 'Contributions to the Raw Materials Problem in Romania, II, Petroleum, Colorants, Rubber, Plastics and Natural Resins', National Bank of Romania, Monetary, Economic and Financial Library, Bucharest, 1939, p. 101.

Six years took for post-war Romania, until 1924, to overcome the pre-war level of crude oil production. In fact, as seen above, the year 1924 was a crucial year, important in the evolution of the Romanian oil industry: the adoption of the new Mines Law stimulated the interest for oil, limiting the access of foreign capital.

The progress made between 1924 and 1928 in the development of oil industry, under the regime of the liberal Mines Law, is illustrated primarily by the increase in the gross production of *"black gold"*. Thus, in the four years of applying the Mines Law, the increase of production exceeded about 2.5 times the level of 1924[74]. The average yield obtained from the processing of Romanian

[72] *National Petroleum Society.*
[73] *Romanian Petroleum Industry.*
[74] *Romanian Oil Monitor (ROM), no. 8 / 15.IV.1931 (Supplement).*

crude oil during the research period oscillated around the following figures: 25% - gasoline; 18% - kerosene; 8% - diesel and mineral oils; 49% - fuel oil or black oil[75]. As can be seen, the lower products (fuel and residues) still had a large share of the obtained derivatives, while gasoline - the main and the most appreciated of the higher products - was obtained in small quantities.

Crude oil yields in the interwar period have made Romania rank the sixth in the world hierarchy of oil producing countries (after the USSR, USA, Mexico, the British Indies and the Dutch Indies - Indonesia). These productions were carried out by 63 oil companies, of which "Astra Română", "Steaua Română", "Concordia", "Romano-Americană", "Creditul Minier", etc., had a capital over 100 million lei (the strongest ones were "Astra Română" with over two milliards, and "Steaua Română" with one billion lei). In 1939, the total capital owned by the Romanian oil companies was 9,686,471,000 lei (MOP, 1900-1948).

What essentially changed the issue of the Romanian oil policy after 1929 was the economic crisis that broke out that year, which seriously and almost equally affected industry, agriculture, transport and trade. Despite all reasons, in the four years of the economic crisis (1929-1933), Romania's oil production has grown unjustifiably compared to previous years. We appreciate that this growth, precisely in the years of the economic crisis, during which almost all countries, with the exception of the Soviet Union, reduced their production, was based on the interests of the world's big oil trusts with strong societies in Romania; these companies exploited the most productive deposits, with minimal spending, yielding maximum productions that they have thrown on the foreign market, especially the European one, at competitive lower prices, but still profitable.

The quantities of exported liquid fuel provided Romania with a leading position (7) among the exporting countries and a 4% share in the world trade in petroleum derivatives in 1927[76]. Thus, in the general export balance of Romania, the share of oil products exports was constant, over 40%, and in the period 1932-1935, it exceeded 50% (ROM, 1900-1948), as follows: 13.1% in 1932, 55.3% in 1933, 52.8% in 1934, 51.7% in 1935, and 41.3% in 1936.

Moreover, the role of engines fuel oil in Romania's economic development during this period is also demonstrated by the share of the main products exported by our country between 1932 and 1940 (Table 3).

Table 3. Oil participation in the structure of Romania's foreign trade, between 1932 and 1940 (%)

Year	Petroleum products	Cereals	Wood	Miscellaneous
1932	43.10	34.30	7.30	15.30
1933	55.30	23.00	7.20	14.50
1934	52.80	17.40	10.80	19.00
1935	51.70	19.60	8.70	20.00
1936	41.30	31.50	7.70	19.50
1937	40.52	32.24	8.96	18.28
1938	43.24	24.42	11.45	20.89
1938	41.87	26.89	9.44	21.80
1940	62.40	18.29	4.96	14.35

Source: Buliga et.al., 2014, p. 450.

As far as the export of petroleum products is concerned, although Romania ranked seven in the hierarchy of the oil producing countries with a share of 2.18%, in 1935 it ranked first in Europe and ranked third in the world (after USA and Venezuela), accounting for 11.6% of world exports. The export of Romanian petroleum products has been on a continuous rise: 45.7% in 1924, 58.3% in 1925, 68.2% in 1927, 75.1% in 1929, 79.5% in 1930, 80.9% in 1932, 76.2% in 1936, and 70.1% in 1939.

Based on its availability, in 1936 Romania ranked third in the oil world trade (with 11.60% of the total)[77]. The main export products required were gasoline (31.4% of the total in 1935) and fuel oil

[75] *'Aperçu general de l'industrie du pétrole roumain', in "La Roumanie Économique", no. 8-9 / 1927, p. 83.*
[76] *Mihail Pizanty, 'The Current Situation of the Romanian Oil Industry', Bucharest, 1928, p. 17.*
[77] *Victor Slăvescu, 'Petroleum Industry in the National Industry', p. 91; M. Constantinescu, 'Importance of Romania in the Petroleum World Trade', in ROM, Special issue, 1937, p. 68. (The author was also based on a special study by Mihail Pizanty, 'Romania's situation in the world oil trade', 1936 or 'La situation de la Roumanie dans la commerce mondial du pétrole', 1937); Şerban Gheorghiu, 'Export of Romanian Petroleum*

(23.7% of the total in the same year)[78]. The large companies "Astra Română" and „Româno-Americană" used for external distribution the subsidiaries of Royal Dutch Shell and Standard Oil Co. trusts[79], while "Steaua Română" had its own affiliates[80]. For the internal consumption operated "Distribuţia" company, to which "Astra Română", „Româno-Americană" or "Steaua Română" were subsidiaries, while "Concordia" company (the Petrofina group) operated starting with 1934[81].

3. The period 1939-1945 (the period of WW2)

All the events in the Romanian oil industry of years 1939-1943 were indissolubly linked to the Romanian-German economic and political agreements. These agreements were numerous and culminated in the Agreement of March 23, 1939, excellently prepared by the Romanian specialists (Preda, 2001). We will nominate several such agreements: September 29, 1939, 5-year Agreement, by which Romania exported oil against German armaments; May 27, 1940, known as the "Weapons against Steel Pact - Öel Pakt", which introduced the principle of compensation for mutual deliveries of goods; December 4, 1940, the Romanian-German Protocol, in which the emphasis is on the Romanian import of industrial machinery and tools necessary for the modernization of the industry in general and of the oil industry, especially for oil, cereals and other products; January 29, 1941, concerning the production of aviation gasoline, which Germany was in great need in invading Greece and imposed on the Romanian refineries the obligation to produce 10,000 tons of aviation gasoline per month.

Saying that the above-mentioned economic agreements did not represent their total number but only a part of them, we emphasize that the Romanian oil was the one that has always been at the forefront of the war, extremely important to the German industry and its allies, the most notable being the exports of petroleum products between 1940 and 1944 (Table 4).

Table 4. Exports of Romanian petroleum products between 1940 and 1944 (tons)

Year	Crude Oil Production	Total exports of petroleum products	Germany	Italy	USSR
1940	5810000	3492957	1552033	305636	-
1941	5453179	4072306	2960706	76167	-
1942	5665357	3373542	2211385	862391	-
1943	5273432	3159168	2546006	391436	-
1944	3525000	2115711	1288611	3312	744082
Total	25726988	16213664	10557734	2324442	744082

Source: ROM, 1900-1948.

Analyzing these data, it results that a total quantity of 12,982,976 tons of petroleum products was exported to the Axis countries during the period 1940-1944, i.e. approx. 78% of the total Romanian exports. Surprisingly, only between 12 September and 31 December 1944, 749,086 tones of Romanian oil products were delivered to the Soviet Union, and between 1 January and 30 June 1945 were delivered another 981,108 tones, whereas for the battle lines were actually destined only 147,752 tons (it was just the beginning of a new calvary for Romania and Romanian oil industry).

Even during the war years, the major oil companies had a huge share in crude oil production (Table 5).

Products', ROM, special issue, 1937, p. 142 et seq. (comments and export table by destination countries 1913, 1920-1936); Paul Zotta, 'Contributions to Some Problems of the Romanian Oil Distribution', Bungay (Suffolk), Richard Clay and Sons, Ltd., 1936, passim.

[78] *C. Osiceanu, 'World Liquid Fuel', 2nd Edition, Bucharest, 1936, p. 65.*

[79] *Paul Zotta, 'Contributions to Some Problems of the Romanian Oil Distribution', Bungay (Suffolk), Richard Clay and Sons, Ltd., 1936, passim, p. 1-3.*

[80] *Ibidem, p. 3.*

[81] *Ibidem, p. 7.*

Table 5. The share of production made by major oil companies in Romania in the years 1942 and 1943

The society	Share of production (%) achieved in the year:	
	1942	1943
Astra Română	30.93	31.69
Concordia	11.66	12.32
Româno-Americană	10.89	10.48
Steaua Română	10.24	10.14
Unirea	9.27	9.32
Colombia	7.63	7.84
Creditul Minier	4.73	5.01
Prahova	4.32	4.16
IRDP	2.13	2.42

Source: Şandru, D., Saizu, I., On the Occupation of Romanian Oil by Hitlerite Germany (1940-1944), in "The Yearbook of the Institute of History and Archeology "A.D. Xenopol", Iaşi, 1.11 / 1965, page 17 (table).

The balance of the participation of the Romanian oil industry in WW2 is demoralizing, due to its huge damage: the exploration and exploitation drilling activity has been considerably diminished and reflected by the drop in crude oil production, while the oil products deliveries to the USSR (representing 42% of the total compensation for the war) have slashed the Romanian economy; pipelines, pumping stations, oil tankers and installations were severely affected. In 1944 compared to 1940, the processing capacity of Group I refineries was reduced by 52%, Group II refineries by 37% and refinery storage capacity by 61%.

The allied aerial bombardments over the oil regions and especially the city of Ploieşti, caused extensive damage in oil scaffoldings, crude oil and petroleum products transport system (of major or local interest pipelines), pumping stations and petroleum harbors, amounting to 5,245,000,000 lei, and completely destroyed some refineries, while others were severely damaged, the total damages suffered by them amounting to 25,968,000,000 lei, the biggest damages of 16,840,000,000 lei being recorded in 1944 (Preda, 2001).

The destruction of large refineries, tanks and products stored in refineries and oil scaffolding, lack of investment and the numerical reduction of skilled workforce, the closure of more than 25% of the extraction oil-wells have made the country's oil production continuously decreasing from 6,610 million tons in 1938, to only 3,525 million tons in 1944. The war damages added to the confiscation by the Soviet authorities of 50,678 tons of oil equipment and machinery, drilling and extraction materials, means of transport, including those from the repair workshops which, between September and December 1944, were dismantled and transported to the USSR, being considered war trophies for delivering petroleum products to the German army.

4. The period 1945-1948 (the restoration of oil industry potential)

After WW2, 26 companies still activated in the Romanian oil extraction industry: 19 foreign companies, which accounted for 86% of the total production, and 7 Romanian companies, which made the remaining 14% of the country's crude oil production[82].

The recovery program had a direct reference to the number and quality of installations and materials for the oil exploration and exploitation drilling, to the commissioning of new oilfields, to the need for reconstruction of severely damaged refineries with worn out installations, and many of they decommissioned by their takeover by the Soviet Union; all of these were in need of important financial resources that were missing, although in January 1945, through Law no. 655, the "National Restoration Loan" was launched, which was not followed by beneficial effects however[83]. Parallel to launching this program to restore the Romanian economy, in general,

[82] *Ionescu, D., Ivănescu, I., 'The evolution of the Romanian oil industry after the First World War until today', in "Oil and Gas Journal", no. 9-10, festive edition, sept-oct.1957.*

[83] *Ibidem.*

and the oil industry, especially, on the political and economic realm there was an almost total assimilation of the country by the Soviet Union[84].

In January 1945 were established the obligations imposed on Romania to pay a six-year (1944-1950) debt of US $ 300 million to the USSR, representing the payment of "war reparations" claimed to Romania under art. 11 of the Armistice Convention. The largest share of this debt was represented by oil products ($ 150 million) and oil equipment ($ 20 million) (Buzatu, 1998). In the same scope falls the initiative, materialized in the Decree-Law of August 1, 1945, for the construction of a main pipeline on Făurei-Brăila-Galaţi-Reni route in order to accelerate the traffic of petroleum products to the USSR. We must point out that the realization of this pipeline was made by decommissioning an existing pipeline on Ploieşti-Teleajen-Giurgiu route and that our country has borne all the construction expenses amounting to 3,800,000,000 lei (Buliga *et.al.*, 2014).

At the same time, in 1945, the deliveries of Romanian oil to the USSR, recorded the following values: on behalf of art. 10 and 11 of the Armistice Convention - 418,254 t and 2,541,592 t, respectively (i.e. 94% of the total exports), and behalf of the Romanian Soviet Trade Agreement on May 8, 1945 - 181,948 t (i.e. 5.79% of the total exports); hence the conclusion that in 1945 the entire Romanian export of petroleum products has been routed to the USSR (ROM, 1900-1948). The same route will be taken by Romanian oil products during 1946: out of a total export of 2,270,631 tons, in the Soviet Union were delivered 2,166,108 t, and the rest of approx. 77,000 t went to Czechoslovakia, Poland, Hungary and Switzerland (ROM, 1900-1948).

The year 1947, which we could call the *"final year of the Romanian oil industry based on private capital"*, did not complete the period of restoration, with all the aggressive intervention of the communist power. By the nationalization of the Romanian and foreign oil companies from June 11, 1948, it was the first step towards the absolute direction and control by the State of the Romanian oil industry. The nationalization of industrial and, in particular, oil companies was the clear signal of Romania's political, economic and informational isolation, with all its political, economic and social consequences, at least until 1964 .

Conclusions

Between 1918 and 1948, past historical vicissitudes and economic crises have made that productions in the extractive industries developed in leaps and bounds, often with periods of recovery or decline. The general economic impetus of Romania after 1924, influenced by the favorable external situation, led to the commissioning of new deposits, the increase in the number of mining, oil and gas companies, of their equipment and technical level, as well as of modernization of preparation facilities.

Between the two World Wars, the mining, oil and gas industries in Romania has progressed a lot, gaining a number of technical achievements that have reflected in increased yield and reduced production costs. In the mining laws of this period, oil-related gas was given no attention, unlike oil, which played an increasingly important role, in direct relation to the increase of its significance in the modern age and, hence, the huge capitals drawn in this industry, especially from foreign companies. Thus, for the first time, the stipulations on oil were seen in some articles of the Law of 1895. Then, special Oil Laws were drawn up and timid introduction of natural gas specification began. This is the case with the Laws of 1924, 1929 and 1937 which, although called "Mines Law", were, by excellence, “Oil Laws”.

[84] *Thus, on May 8, 1945, an additional agreement was signed for the delivery of petroleum products to the USSR, an agreement which prefigured, under conditions imposed and accepted by the Romanian side, the establishment of the famous SOVROMs, starting with the SOVROM-Petrol Society (on July 17, 1945), by which the Romanian oil industry was left at the Russian control.*

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Romanian Oil Monitor (ROM), Collection 1900-1948.

DIRECT AND BACK REACTIONS BETWEEN REAL AND NOMINAL ECONOMIC CONVERGENCE

Emil DINGA[85]

Abstract

The Maastricht criteria towards adhesion to euro area address the nominal economic convergence inside the European Union. However, the nominal economic convergence is sustainable only it is based on the real economic convergence. In this context, the paper approaches the relationships (structurally, and functionally) between real economic convergence and nominal economic convergence from the perspective of mutual support. To this end, a cybernetic methodology is used, based on feed-direct, and on feed-back connections between the two types of economic convergence, in order to put into evidence the ways in which the two convergence processes lead, in fact, to a pair of economic convergence. As a result, the channels of communications inside the pair of economic convergence, as well as the magnitude and the speed of the two causal reactions are examined and evaluated.

Keywords*:* real economic convergence, nominal economic convergence, feed-direct, feed-back

JEL Classification*:* B41, E32, F15

Introduction

Based on the distinction made previously between the real economy and the nominal economy, we may also examine the contingent[86] or necessary inter-conditioning between the process of real convergence (RC) and the process of nominal convergence (NC). Such action is very useful both theoretically and methodologically, to determine causalities or conditionings in the structural or dynamic linkage[87] of the two mentioned processes.

Theoretical reasons to analyse inter-conditioning

First, considering the structural character of the real convergence (demonstrated previously), we may estimate that effects of this convergence will influence the nominal convergence, based on the axiom saying that the functions of a system represent expressions of its structure. Therefore, as a state vector of the analysed economic system gets increasingly closer to that of the benchmark[88], the new structure will influence the values or trends which measure the nominal convergence. We can conclude from here that the process of nominal convergence can only be sustainable if a process of real convergence occurs (concomitantly or immediately after). In other words, we may say that as long as the elements of nominal convergence are not absorbed at the level of the real economy pattern, the nominal convergence is reversible.

Second, once the „image" of the nominal convergence has been „embedded" into the pattern if the real economy, there is a feed-back relation from the process of real convergence to that of nominal convergence, considering that economic macro-stability is usually measured using the indicators/criteria of nominal convergence. Thus, there is a permanent and continuous reciprocal exploration between the two processes of economic convergence.

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[86] *Here the term of contingent has it meaning from logics (proposed by Aristotle): possible and non-necessary, usual, produced frequently from the practical point of view.*

[87] *We remind just two of the inter-conditionings already marked by the literature: a) the Maastricht paradox: real convergence can have an adverse effect on the nominal convergence (particularly at the level of inflation); b) the Balassa-Samuelson effect.*

[88] *This evaluation is, of course, symmetric: the effects of the real process on the nominal one will produce not just in the case of convergence, but also in the case of divergence, the transmission channel still being the structure of the analysed economic system.*

Third, there are own[89] phenomena of the real economy which take place according to an autonomous causality but which, once they get into the structural modifications of this type of economy, become firm causes or conditionings for the nominal phenomena.

All these considerations, of maximal generality, are as many motivations to investigate the real convergence and the nominal convergence as a binomial. Although this study is concerned only with the process of real convergence, the above considerations, and the following methodological considerations, will cause a permanent analytical and interpretative "swinging" between the two categories of processes of economic convergence.

Methodological reasons to analyse inter-conditioning

First, all the phenomena specific to the real economy are measured in currency, by reason of aggregation or comparability. The monetary expression of these phenomena makes a direct connection with the financial flows (and within them, as shown before, with the nominal flows) specific to the process of nominal convergence. In other words, RGS[90], by their dimension, dynamics and structure generate, directly, NGS. In turn, NGS (for instance, the bank credits) generate some of the constitutive conditions of RGS.

Second, the existence of the real and nominal anchors for a whole series of micro and macroeconomic variables is due to introduce directly (and reciprocally) causalities and conditionings between the two convergence processes. Thus, the real anchors can influence the nominal variables, while the nominal anchors can influence the real variables. Furthermore, there may be direct interdependencies between the real and nominal anchors themselves, involving themselves reciprocally either at the level of the dimension or at the level of the dynamics, or at the level of the direct concatenation, within the general economic process.

Third, the modelling of the general economic process cannot be done without taking into account, simultaneously, both of the real and the nominal variables. This means that the modelling of the process of economic convergence will have to integrate both the process of real convergence and the process of nominal convergence, within a unitary, coherent and consistent model. This is an extremely important methodological reason to analyse the inter-conditioning between the two pair-processes[91] of economic convergence.

Classes of inter-conditioning between the RC and NC

Based on what was said above, we propose to identify the classes of inter-conditioning existing (category of required inter-conditioning) or which may exist (category of contingent inter-conditioning) between the process of real convergence and that of nominal convergence.

The modality we will use is the causal or conditional one, that is, we will examine at the abstract, general level, a list of classes of such inter-conditioning.

As methodological „vehicle" we will use the investigation of the transmission channels for the real impulse and of the nominal impulse, between the two categories of economic convergence.

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[89] Own, meaning that they are autonomous in relation with those from the process of nominal convergence, same as, in principle, there are own phenomena in the process of nominal convergence itself.

[90] As we remember, we noted with RGS the expression „real goods and services", and with NGS we noted the expression „nominal goods and services".

[91] Some analysts consider a third process of convergence which should accompany the real convergence and the nominal convergence: it is the so-called institutional convergence. Our opinion is that: a) on the one hand it is true that next to the well-known five nominal convergence criteria there is one more – alignment of the central bank's legislation to the related European legislation – and that it was rightfully shown that this is not a nominal criterion (not by our economic standards used to evaluate the concept of nominal, because by the logic standards, it should, nevertheless, be nominal), but rather an institutional one; b) on the other hand, however, institutional convergence is not a category of economic conversion. In conclusion, our opinion is that although we can accept the idea of a process of institutional convergence, when we speak of economic convergence there are only two species of convergence, real and nominal.

Transmission channels of the nominal impulse on to the real variables

a. a first such a channel is that of the *nominal banking interest rate*. The real variable on which it impacts may be either one belonging to the internal aggregate demand[92] (consumption or governmental expenditure[93]) or one belonging to the aggregate internal offer (investments). The nominal impulse[94] we mentioned[95] has an action with different orientations, according to the real variable which is affected: if the nominal banking interest rate increases, the impulse on the consumption and investments can be one of decreasing (according to the classical curve of the demand, to the increase of prices ceteris paribus), but the impulse on the governmental expenditure may be one of increasing (due to the necessity of a premium to the interest rate of the state securities used to finance the budget deficit);

b. a second transmission channel is that of *inflation*. The impact of inflation on the real economic variables is produced in the form of the decrease of demand (for consumption – both for strictly necessary goods and for long term goods or services – or equipment), according to the classical curve of the demand. In general, the decrease of the purchasing power of the monetary unit[96] will decrease the solvable demand (of the actual demand, in Keynesian terminology), which will decrease the aggregate offer (both internal and external). Therefore, the inflation transmission channel of the nominal impulse on to the real economy is meant to reduce particularly the real variables of level. However, since the dynamics of the real variables of level may have structural effects in the real economy, this impact will supposedly affect adversely the real convergence too (seem especially as a structural convergence);

c. A third transmission channel is that if the *real exchange rate*. Although the exchange rate which is used in the calculations of economic rationality of the real economy is the nominal exchange rate, the behaviour pattern of the real economy will be similar to that one observed for the wage[97], taking into consideration the real exchange rate. The impact is transmitted particularly on to the foreign balance, at the level of the current account deficit (first on the commercial balance). This can affect both the degree of openness[98] of the economy as such, and the structure of this degree of openness. Or, the degree of openness of the economy is (as we shall see in the study) one of the criteria of real economic convergence.

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[92] Methodologically, it may seem to have here an inadvertence, because the gross formation of capital (considered here as belonging to the internal aggregate offer) is a component of the internal demand (internal absorption minus the import). Taking into consideration that the gross investments (and the net investments, particularly) make the internal offer to vary, we allowed ourselves the methodological license to consider the gross formation of capital as operating from the perspective of the internal aggregate offer.

[93] The affectation of the governmental expenditure refers to the fact that the financing of the general consolidated budget deficit by issuing state securities takes the banking interest rate as benchmark to determine the interest rate for the respective state securities.

*[94] Although one may argue here that it is not the nominal interest rate, but the real interest rate which influences the economic behaviour (the behaviour of demand for bank credits – irrespective of their destination), we consider that the involved economic agent is informed and warned on the **Fisher** relation – real interest rate = nominal interest rate – inflation. (NB: as it is known, this simplified formula of the relation is valid for small values of the involved economic measures, the full, general, relation being: $(1 + r_n) = (1 + r_r) \cdot (1 + i)$, where r_n is the nominal interest rate, r_r is the real interest rate, and i is inflation). Therefore, the economic subject makes the necessary adjustment during the decision-making process.*

[95] In principle, we might prolong the mentioned causality to the level of the monetary policy interest rate, but we must notice that the transmission of the monetary policy interest rate impulse on to the banking interest rate is a nominal-nominal channel, not a nominal-real one. Therefore, we will subsequently make our analyses only on the nominal variable which is proximal in relation to the affected real offer.

[96] As it is known, this is the very rigorous definition of inflation.

[97] Case in which, although the economic subject „meets" directly the nominal wage, the calculations of economic behaviour pertaining to the choice between the two „goods" – time for work and free time – are made on the basis of the real wage.

[98] As it is known, the degree of economy openness is determined as proportion of the foreign trade (exports plus imports) within the GDP.

Transmission channels of the real impulse on to the nominal variables

Concerning the transmission channels of the real variables impulse on to the nominal variables, we consider that these have the nature of the gaps from the real economic variables. Several such categories of channels (gaps) can be identified.

a. dimensional gaps: they refer to breaching some fundamental relations of the economic process, breaching which induces pressures (increasing, decreasing or blocking the variation) on some nominal variables. For instance, an actual GDP higher than a potential GDP[99] induces pressures on price increase, transmitting thus an inflationist impulse (the effect is not symmetrical, an actual GDP lower than a potential GDP will not transmit a deflationist impulse to the economy). Of course, this is the most general dimensional gap possible but, dimensional gaps can be identified at the level of GDP structure, which may impact on the nominal variables. For instance, at the level of the actual GDP utilisation, a higher proportion of the final consumption than of the gross formation of capital may indicate the possibility for an inflationist impulse, the economic growth being dependent on the consumption component of the internal aggregate demand. Also here, if the net export is negative, this means a net outflow of capital through the current account, which reduces the offer of capital on the internal currency market, impacting on the exchange rate which increases (the national currency devalues[100]). The dimensional gaps of the real variables are "linked" theoretically; their significance and even the actual transmission mechanism of the impulse generated by these gaps depend on the general hypotheses of the accepted economic theory. But, irrespective of the accepted economic theory, the dimensional gaps of the real variables are, necessarily, potential generators of impulses on the nominal variables[101];

b. kinematic gaps: the kinematic gaps of the real economic variables act similarly with the dimensional gaps, with the difference that their impact is produced due to the difference of relative variation between the involved variables and not just due to the differences at a certain moment. Theoretically, there may be two categories of such kinematic gaps:

- kinematic gaps between two distinct real economic variables. Some of the most important correlations of the macroeconomic theory refer just to the gaps of kinematics between two distinct variables of the real economy[102];

- kinematic gaps within the same real economic variable, but which acts in distinct economic sectors, or in distinct institutional sectors[103], or in different countries, such as for instance the differences of work productivity kinematics between the secondary[104] and tertiary sectors leads to inflation [105] differences between the two sectors; otherwise, here lies the origin of the famous Balassa-Samuelson[106] effect. Unlike the dimensional gap, the kinematic gap is not transmitted directly to the nominal variables, rather it needs a vehicle (also real) which to make this transfer of the impulse. In our example, this vehicle is the workforce and its circulation between the secondary and tertiary sectors (the economic rationality of this circulation is based on the workforce opportunity cost), which entails wage homogenization in those sectors;

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[99] By actual GDP we understand the GDP which is actually created, while the potential GDP is the GDP possible to be created by the full utilisation of the available production factors.

[100] We will notice here a sui-generis mechanism of automatic monetary stabilizer: the monetary appreciation leads to monetary depreciation and vice versa, by modifying the structure of the net export within the GDP.

[101] It is, of course, a much more difficult problem (however, not in the scope of this study) that of the intensity, amplitude or duration with which such a dimensional gap affects the nominal variables.

[102] Consider just the well-known example of the correlation between work productivity kinematics and the kinematics of the gross average wage, in which work productivity must increase faster than the wage in order to have a non-inflationist, sustainable growth).

[103] We remind that the economic sectors are: primary, secondary, tertiary, quaternary, and the institutional sectors are: households, non-financial firms, financial firms, public administration, private administration and the rest of the world.

[104] It is accepted rather tacitly, that the secondary sector produces (tradable goods) and the tertiary sector produces (non-tradable goods).

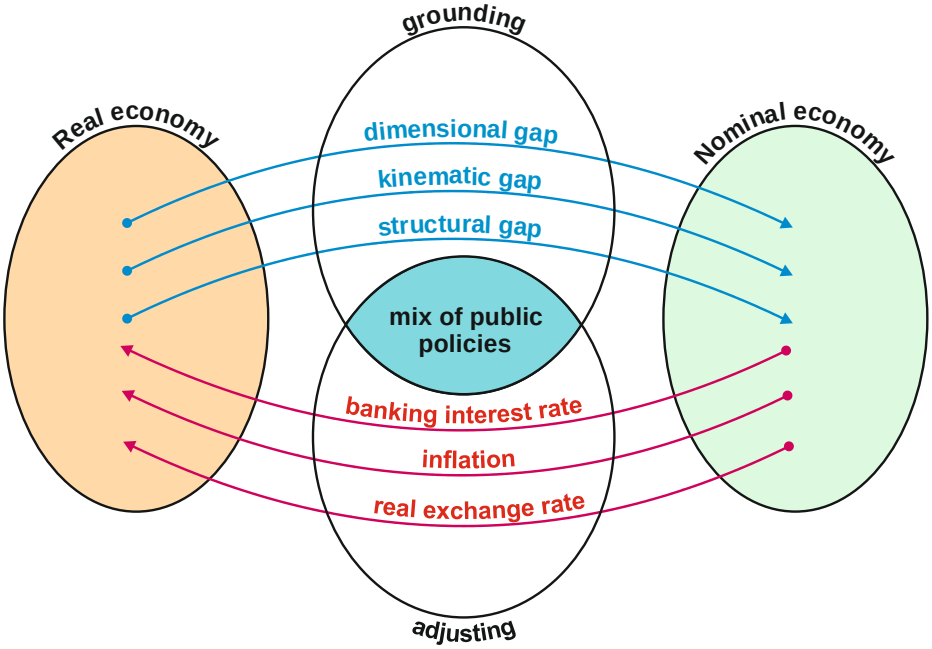
[105] Rigorously, inflation is the rate of the general price (weighted average price of the analysed period).

*[106] In fact, when we study the mentioned effect of the kinematic gap on the price, we deal with the internal version of the **Balassa-Samuelson** effect (version termed **Baumol-Bowen**) effect, the external version being the one which studies the impact of the kinematic gap on the real exchange rate. However, the abstract mechanism of the two versions is logically equivalent.*

c. structural gaps: this category refers to the structural differences existing between two entities segmented methodologically (or from other points of view) of the real economy. For instance, there may appear impulses on the nominal economy if the proportion of the economic sectors with high price volatility or with administrated prices or with prices affected by the foreign prices (by pass-through) is significant within the structure of GDP formation. Of course, the structural gaps have a much more important impact when they affect two different countries[107]. We will have here the well-known problem of the adverse effects, too. An adverse effect, in general, is an effect not anticipated, although expected, just due to the differences of economic structure (from the perspective of different criteria) existing in the "focus" of emanation of a real shock (for instance, a variation of the demand or offer of goods or workforce) and the rest of the system in which the shock propagates[108].

The figure 1 shows a synoptic view on the reciprocal transmission of impulses between the real economic convergence and the nominal economic convergence process.

Figure 1. Channel of transmission of impulses between real economy and nominal economy



Source: author

Indicators of real economic convergence and indicators of nominal economic convergence

Through the transmission channels discussed above, in fact, flow the impulses of the variation of macroeconomic indicators involved, that is, the impulses of the indicators assigned to the real economic convergence process, and those of the indicators assigned to the real economic convergence process, respectively. Principled, the indicators of the nominal economic convergence are just the Maastricht Treaty's criteria. Regarding the indicators assigned to the real economic convergence, we propose eight such indicators (Dinga, 2012), grouped by three classes, as follows (table 1):

[107] Do not forget that, ultimately, the elimination of the structural differences between the EU member states (that is, exactly the process of real economic convergence) is the generator of the Maastricht paradox.

[108] Of course, the higher is the level of integration of a given economic system (the globalized economy representing, obviously, the maximal level of integration, if we limit to our native planet), the higher are the imminence and transmission speed of a real shock within that system. But, both the imminence and the transmission speed of the real shock are inversely proportional to the probability of appearance of an adverse effect, because the adverse effect is favoured by the structural differences (structural gaps – both in the real economy and in the nominal economy), while the structural differences are inversely proportional to the degree of integration.

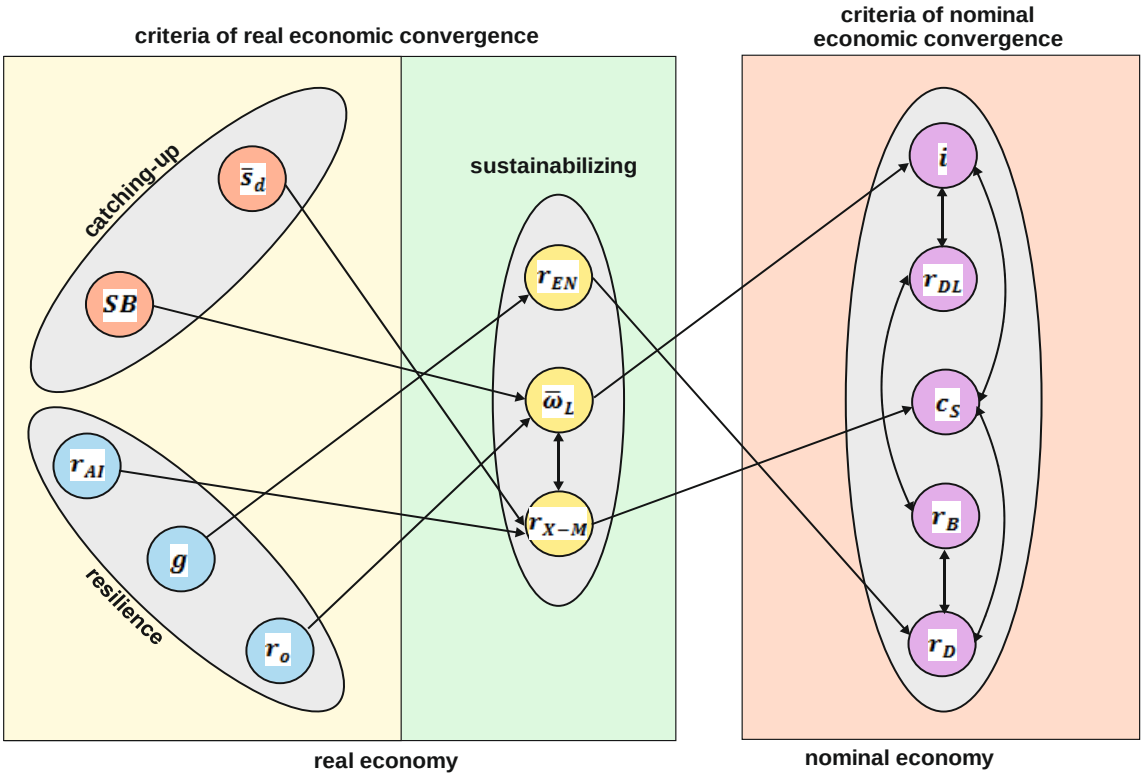
Table 1. The classes of the real economic convergence criteria/indicators

			Depth		Theoretical stability	
			Rather deep	Rather shallow	Rather stable	Rather unstable
Class of the catching-up criteria	average domestic offer	$\bar{s}_d$		x	x	
	degree of external openness (	r_e^o		x		x
	average monthly gross nominal wage	SB	x		x	
	structure of revenues formation	y(k)	x			x
Class of the sustainabili-zation criteria	rate of net national saving	r_{EN}		x	x	
	average work productivity by tradable sectors	$\bar{\omega}_L(t)$	x			x
	structure of GDP utilization (structure of expenditure formation)	y(q)	x			x
	account balance of the foreign payment current account	r_{X-M}		x	x	
Class of the resilience criteria	sectoral revenue structure	y(j)	x			x
	rate of domestic absorption	r_{AI}	x		x	
	government dimension	g		x	x	
	employment rate	r_o		x	x	

Source: Dinga, Emil. Rebuilding Economics. A Logical, Epistemological, and Methodological Approach. Lambert Academic Publishing. Saarbrucken, Germany, 2012, p. 256.

In order to ensure the stability, more exactly, the sustainability of the nominal economic convergence once a country entered ERM2 and then the euro zone, it is crucial that the real economic convergence support the nominal one. The main feed-direct impulses from the indicators assigned to the real economic convergence to the indicators assigned to the nominal economic convergence are shown synoptically in figure 2.

Figure 2. Basic causal impulses between real economic convergence criteria and nominal economic convergence criteria



Source: Dinga, Emil (coord), Internal study of CFMR – Department of Fiscal-Budgetary Studies, 2018

Based on the scheme in Figure 2, we can now establish the causal chains (series) from the real economic convergence criteria to the nominal economic convergence criteria as follows:

$$\text{I.}\quad \bar{s}_d \rightarrow r_{X-M} \rightarrow c_S \rightarrow \begin{Bmatrix}(1) \rightarrow i \rightarrow r_{DL} \rightarrow r_B \rightarrow r_D \\ (2) \rightarrow r_D \rightarrow r_B \rightarrow r_{DL} \rightarrow i\end{Bmatrix}$$

$$\text{II.}\quad SB \rightarrow \bar{\omega}_L \rightarrow i \rightarrow \begin{Bmatrix}(1) \rightarrow r_{DL} \rightarrow r_B \rightarrow r_D \rightarrow c_S \\ (2) \rightarrow c_S \rightarrow r_D \rightarrow r_B \rightarrow r_{DL}\end{Bmatrix}$$

$$\text{III.}\quad r_{AI} \rightarrow r_{X-M} \rightarrow c_S \rightarrow \begin{Bmatrix}(1) \rightarrow i \rightarrow r_{DL} \rightarrow r_B \rightarrow r_D \\ (2) \rightarrow r_D \rightarrow r_B \rightarrow r_{DL} \rightarrow i\end{Bmatrix}$$

$$\text{IV.}\quad g \rightarrow r_{EN} \rightarrow r_D \rightarrow \begin{Bmatrix}(1) \rightarrow r_B \rightarrow r_{DL} \rightarrow i \rightarrow c_S \\ (2) \rightarrow c_S \rightarrow i \rightarrow r_{DL} \rightarrow r_B\end{Bmatrix}$$

$$\text{V.}\quad r_o \rightarrow \bar{\omega}_L \rightarrow i \rightarrow \begin{Bmatrix}(1) \rightarrow r_{DL} \rightarrow r_B \rightarrow r_D \rightarrow c_S \\ (2) \rightarrow c_S \rightarrow r_D \rightarrow r_B \rightarrow r_{DL}\end{Bmatrix}$$

We can draw the following qualitative conclusions:

(1) there are five channels of transmission from the real economic convergence criteria, only those of the type of sustainability (two of the catching-up criteria and three of the resilience criteria), to the real economic convergence criteria of the type sustainability, which actually implements the interface with nominal economic convergence criteria;

(2) given that there are cross-conditions (either causes or correlations) between the five criteria of nominal economic convergence, each impulse driven by the real economic convergence criteria breaks out as soon as it reaches the first convergence criterion nominal economy in two parallel channels;

(3) any impetus from the real economic convergence criteria ultimately affects all nominal economic convergence criteria through the inter-conditioning mechanisms in the nominal economy;

(4) of the five channels, channels I and III, although they go from different real impulses (the average domestic offer, the rate of internal absorption, respectively), since within the criteria of real economic convergence are exercised over the same sustainability criterion the trade balance or the current account) then follows the same impulse paths;

(5) similarly, things are happening with channels II and V which, although starting from different real impulses (gross average wage, respectively the employment rate), because within the criteria of real economic convergence are exercised on the same criterion of sustainability (average labour productivity or total factor productivity) then follows the same „impulse path" links.

Conclusions

Real and nominal economic convergence are not at all two independent processes one to another. Firstly, the real economic convergence provides the economic bases for the nominal economic convergence, whilst the nominal economic convergence returns on the real economic convergence by adjusting the real economic processes or by signalling some specific unbalances at the macroeconomic level. Second, no one between them can achieve its purpose without the other do the same. A theoretical model to get the economic convergence with EU must build a mix between the public policies aimed at to „govern" the real economy and the public policies aimed at to „govern" the nominal economy. The paper tried to describe this reciprocal and permanent „dialog" between the process of real economic convergence and the nominal economic convergence, by mutual fine tuning adjustment through the identified indicators measuring the two economic processes.

LOCAL ECONOMIC DEVELOPMENT. SOME THEORETICAL PREMISES

Mihail DIMITRIU[109]

Abstract

In conclusion, there is a great interest in regional theories, which analyze and support the importance of institutions and different bodies in promoting development at the territorial level. Together with the institutions, regional policies also have an important role, which, through the established objectives and the tools used, can affect both localization and regional development.

The choice by the local authorities of the models on which to base their medium and long-term development strategies must be a permanent concern in achieving performance.

A viable solution for generating community development and conducting a comprehensive community-wide process could be given by the implementation of several models in the same community, models that are being planned at the implementation stage become complementary and complement the process Community-level development at the level of each community.

Keywords*:* real economy, local economic development, network

JEL Classification*:* D80, R11, R12

Introduction

The role of the regions in national economies has changed significantly over the last period as a result of *globalization and structural adjustments*, understanding this process being crucial to understanding regional economic analyzes and regional development planning.

The regional impact of recent economic and social changes has placed the development of national economies *in a complex, uncertain and competitive world*, which has led to fundamental changes in the structure of their economies, the development being profoundly differentiated, producing acute differences between winners and losers, rural areas suffer from a sharp decline, with the specialization of the economy demanding protection to ensure that products are competitive on national or global markets.

Regional analysis methods and tools are vital for both research and support to local policy makers in improving performance and to designing a strategic planning framework to place the region in a position to create and maintain *competitive edge*.

The specificity of the subject of study of the regional economy

The specificity of the subject of study of the regional economy is significantly different from the national economy, macroeconomic, differentiation which is found in highlighting the more interdependencies of the economic, social, ecological, cultural, etc. elements, in regional spaces, than in the national or international spaces.

The degree of interdependence highlights two dimensions of research and configuration of *regional relations*, namely:

-o interregional relations between distinct regions;

-o intra-regional relations within the region.

The second category of relations highlights the interdependencies between the local areas and the local economies, distinguishing *between the regional economy and the local economy (rural or urban)*, the latter addressing the problems specific to the development of the localities as well as the specific rural areas specific urban areas.

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The set of relationships, interdependencies and interactions that take place in the local, regional, urban and rural spaces between the participants in the production, commercial, consumer, financial, social, ecological, cultural, etc. activities, forms the **network** within which the economic network is delineated, within this network, the dominant role of the **communities** in terms of network rationality.

In the demarcation of strategies and policies of economic development, the region is a fundamental component, the spatial complements of the region being the area and the zone, but between these terms there is a methodological delimitation.

The delimitation of the zones within the regions is made according to various criteria (economic, administrative, geographical, etc.), there are no fully satisfactory methodologies, and compromise is necessary. One of the classical delimitations reveals the following *types of zones*:

1. *Homogeneous zones*, which are similar according to key criteria (income / inhabitant, degree of industrialization), in which case the cohesion is ensured by the similarities, the internal differentiations and the interregional interactions are not considered important;

2. *Nodal (polarizing) zones*, in which case cohesion is ensured by internal fluxes, polarizing interdependences around a dominant center of a node, forming a *network of interdependencies*;

3. *iInstitutionalized zones*, where cohesion stems from an administrative framework and the implementation of specific local development policies and programs.

Taking into account the economic and social problems they face*, three categories of problematic zones were delimited in Romania*, namely:

1. Traditional underdeveloped zones (mainly agriculture-centered);

2. Zones in industrial decline (job cuts);

3. Fragile structural zones (one branch dependence).

Within the regions, **the rural space**, which, as defined in the European Charter, is defined as the inner and coastal zone, comprising the villages and small towns where most of the land is used for agriculture, forestry, spending leisure time, nature reserves, housing, craft activities, industrial services or activities. The definition highlights that *rural space is more extensive than agricultural space*, but their significance is different.

Sustainable local development implies the completion of a complex of legislative, organizational, economic, financial, social, cultural, etc. activities. which will ensure the improvement of the material and spiritual situation of the population (now and in the future!), by the non-destructive capitalization of the resources of the spatial space.

Local development strategies, policies, programs and projects target objectives such as: reorganization of the territory; carrying out land improvement works, developing and expanding the network of communication routes; conservation and regeneration of resources and preservation of ecological balance; landscaping and creating conditions for agritourism; raising the living and comfort of the population.

Local economic development characteristics

Theoretically, conceptually, local economic development has several characteristics, namely:

a) *spatiality*, that is, it is oriented "around man", encompassing it as an ever-expanding sphere, interwoven totally between man and nature, between man and his free spirit;

b) *multidimensionality*, that is, the variety of products, human artifacts (goods, institutions, knowledge, etc.) differentiated in a network, from interests and institutions to goods (economic) and behaviors;

c) temporality, ie the evolutionary evolution of local time development, both of the subject, of the attributes and of the phenomena and processes involved;

d) *relativity*, ie the existence of a diversity of relations between goods, between generating people and consumers, suppliers or beneficiaries of these goods, relativity resulting in interdependencies

of different natures, from causality to transitivity, often taking the form of one-way, two-way or multi-way flows.

The fact of being within a networkis is the defining feature of a sustainable economy, the network of relationships having certain determinants that give it that status.

Operationally, pragmatic, the network is a composite assembly between different types of requirements, component objectives, network partners, compromises between different action logic within the network, often generating innovations.

The phenomenon of networking was determined by the amplification of the tertiary phenomena of the economy, especially at the local level, and by the emergence of information technology, in the new type of economy, the added value having a predominantly intangible, non-material character, being created by economic actors who have specialized expertise. The expression of these phenomena is the equalization of the potential influence of the involved subjects, which led to the democratization of the relations between them, triggering a rapprochement for cooperation within symbiotic structures which, favoring collaboration, does not exclude competition and conflicts.

There is a diversity of *links* that go beyond mere vertical integration of technological systems, integration based especially on the existence of internal synergies, the new links relying mainly on external synergies resulting from the association of the competences and resources of economic and non-economic entities in order to achieving objectives that can not be achieved by the activity of individual economic subjects.

In the context of local economic development, the network is primarily a conceptual space and a configuration of connections of different natures, resulting from coagulation and interconnection of channels of communication and circulation of knowledge and information, generating well-formed action structures and behavioral coherence intrinsic to economic actors in a zonal space.

Network efficiency, particularly decentralization, is strongly conditioned by the intrinsic capacity of network elements to behave and act autonomously through *self-organization.*

The degree of decentralization within the configuration networks depends on several conditions:

1. *Diminishing* the need for unitary, hierarchical coordination through command decisions;

2. *Orientation* of the planning of activities at the local level, by focusing on more specialized functions and activities,

3. *Adaptation* of objectives and results to non-standardized, locally formulated norms;

4. *Developing* skills and capabilities of self-organization, self-control and accountability.

Increasingly, networks become part of *the strategic infrastructure*, not only for business, but also for regions and communities, allowing them to operate successfully in the new economy.

The interaction of economic entities, organizations or firms with the environment is conditioned by the existence of *differentiated proximity degrees*, which characterize the relations between entities in a given space (area, locality, commune, city, county, region). Proximity grades determine the greater or smaller benefits of establishing close links between the occupants of a given space, the possible situations depending on the market position of the tenants, their number, the share of each competitor, the existence of leading companies, etc. .

There are *different levels of proximity between economic actors*, namely: local space proximity, social proximity, technological proximity, productive and commercial proximity, and national proximity.

Proximity relationships outline two ways of acting for entities, businesses:

▪ First is dominated by *market and competition relations*, with the main sanctions and rewards of clients' choices;

▪ The second, dominated by *partner relations*, the ability to establish and develop relationships with the closest, proximate partners to manage externality, being an essential element of local and regional development strategies

In this context, the phenomenon known as "agglomeration economies", also called external economies, which implies the competitive advantages of the entities resulting from the neighboring state and, implicitly, the interaction between them, is imposed.

In practice, external economies result in a significant reduction in production costs, as they allow an efficient organization of the distribution of efforts between in-house and market-driven activities.

Elements that can influence the *location of activities,* various entrepreneurial entities are specific to the structure of the area: the proximity of urban agglomerations, the existence of vocational training structures, the development of services and infrastructure, etc.

In the local space, partners can usually be delimited in *public, private and social*, all of which contribute to the development of the area's competences heritage, but an essential link between them is the associative entities, being within the area, an associative network, an organizational - economic reality with a specific significance for the dynamics of the area.

Established on a partnership basis, these associations aggregate organizations or firms of different or similar sizes, through association agreements, forming alliances in order to achieve common, complementary, inclusive objectives for the development of development programs and projects.

Different forms of networks support

Several different forms of networks support the economic development of the zone, namely:

- **The community**, which creates the network for common, common, basic knowledge, and distributes the information. Common knowledge allows people to be better informed, better educated, and become more informed when deciding on private and public investment, production and trade.

Basic knowledge leads to the development of the second form of the network, which is important in economic development, the associative network involving learning and the ability to improve the knowledge, production and development of industries.

Historically, the associative network linked to economic development has been formally structured where members have asked to participate in the network (professional organizations, chambers of commerce, service clubs, etc.), which play a significant role in supporting economic development, becoming gradually more specialized, many of the associates being hierarchically structured hierarchies or chains.

The globalization and revolution of information technology has fundamentally changed the meaning and role of associations, the networks of the new economy becoming more open, aspal and informal, information flows within networks becoming faster, circulating through complex radial structures. The new associative networks have both local and global features, and can be spatial and spatial.

- **Alliance** is closely linked to networks, but it is the tactical aspect of the network and involves relationships between two or more entities that have compatible business roles, the alliances becoming strategic when planning processes between the parties of the alliance are made to ensure the most advantageous position.

Different types of alliance structures and networks play a key role in the local development process, delineating the strategic alliances that have emerged in the local context, claiming a well established network and strengthened organizational structures in the economy of the area, acting as a catalyst for growth, facilitating business development, an example of such alliances being twin cities, these alliances can help the economic development of the area.

A key element of the alliance is the catalyst, made up of people and organizations acting as information exchange agents, in the form of information packages, products, resources, etc. for alliances, these being the brains of the alliances, in the future, this role of catalyst in the areas will have the organizations centered on the economic development of the area.

Depending on the *configuration of the alliance*, strategic alliances are delimited in three types:

1. A*lliances based on complementarity* between participants performing different activities, aiming to ensure the complementarity of operations in order to optimize them. These alliances are based on product sharing between partners, allowing partners to benefit from the potential complementarity.

2. *Integrative alliances*, when the activities and assets are of the same nature, aiming to achieve economies of scale; the alliance usually consists of links upstream and downstream of the economic process, in particular production or investment . The engine of strategic integrative alliances is an activity, an objective that is the reason, subject of the alliance, the partners remaining competitors upstream and downstream.

3. *Additive alliances*, aiming at joint realization of a final product, representing an alternative for merger, the consortium being substituted for the market partners. The Alliance carries out all the phases of the flow of activities and operations, being structured around a new society, in which some activities are carried out jointly, the other being distributed among partners.

Conclusions

In conclusion, there is a great interest in regional theories, which analyze and support the importance of institutions and different bodies in promoting development at the territorial level. Together with the institutions, regional policies also have an important role, which, through the established objectives and the tools used, can affect both localization and regional development.

The choice by the local authorities of the models on which to base their medium and long-term development strategies must be a permanent concern in achieving performance.

A viable solution for generating community development and conducting a comprehensive community-wide process could be given by the implementation of several models in the same community, models that are being planned at the implementation stage become complementary and complement the process Community-level development at the level of each community.

Territorial development can not be achieved without the direct contribution of SMEs. Small and medium-sized enterprises, by their nature, appear locally and carry out small-scale activities, being particularly connected to local and regional markets. Only a small part of them are active at national level or manage to find a niche in the international market.

Between Romania's regions there are persistent overall gaps in development that are reflected in business and entrepreneurship. The evaluation of indicators for SMEs reveals the existence of marked disparities between the eight development regions, the Bucharest-Ilfov region being detached with a superior level of performance.

As regards the SME density in Romania, compared to the average in Romania (about 25 SMEs / 1000 inhabitants), there are large disparities in the eight development regions. The Bucharest-Ilfov region is at a great distance from the other regions with the highest density of SMEs, ie 52.73 SMEs / 1000 inhabitants (at the end of 2017, based on consolidated data at the level of the Ministry of Finance Public, from the balance sheets of economic agents active in the real economy). Densities in the other regions are at half the value for Bucharest-Ilfov in the North-West and Center regions, or even one-third for the North-East region (about 17.2 SMEs / 1000 inhabitants).

As for the regional specialization of SMEs, these (enterprises) are present in all sectors of the economy in most regions. However, some regions are distinguished by the preponderance of certain sectors, as in the case of the Bucharest-Ilfov region, which has a significant share of the SMEs in the Services and the North-West and Center regions with the best-defined industrial specialization profile.

In terms of the regional labor force, the Bucharest-Ilfov region also has the highest percentage of employees in SMEs (approximately 24.3%), which is correlated with the number of firms or SME density.

In the other regions the number of employees in SMEs ranges from a minimum of 7% for the South-West region to a maximum of 16% in the North-West region.

The territorial distribution of the new registrations made for the year 2017, at the level of Romania, shows a significant detachment of the city of Bucharest compared to the other counties, which registered over 17,200 registrations.

Small and Medium Enterprises in Romania face four major problems:

- *Critical mass problem* - is directly observable statistically, as the density of SMEs per 1000 inhabitants in Romania is well below the European average. More specifically, if there are not enough companies, their contribution to VAB / GDP can not be significant either.

- *Problem of size* - this is evident from the radiography of the sector, as there is a higher share than the regional level of small and very small firms, mostly in survival, without big plans for growth or managerial sophistication.

- *Problem of sectorial structure* - comes from the small firms' appetite to trade and trade mediation. Romania, in addition to trade, needs well-built productive chains, with services to boost industrial potential.

- *Problem of resilience* - it can be seen from the magnitude of the SME reaction to the crisis as well as from the low survival rate of the newly created firms. Romanian companies appear opportunistically and by copying existing models, rather than by robust planning that takes into account rigorous risk management and contingency plans.

By their characteristics, SMEs offer advantages in the economy that large firms do not offer (spin-off, start-up, social capital, lower entry and exit costs, lower risk of failure, etc.), but they do not employment or growth necessarily, but by the possibilities of enhancing the competitive advantages for a region or a country.

Future actions should therefore focus on a mix of complementary measures aimed at improving the business environment, financing needs and facilitating access to appropriate tools for SMEs, with a stronger emphasis on business innovation and the development of high qualifications and professional skills specialized.

Support for improving the business environment, by simplifying procedures and reducing administrative costs, must follow all the key moments of the entrepreneurial lifecycle (start-up, development, business transfer, bankruptcy or second chance) through legislative initiatives and tax, reducing the bureaucracy and the number of taxes and duties.

Education and training are key factors in acquiring the knowledge and attitudes necessary for business success, but we must not neglect the shortage of qualified human resources in the areas of specialized skills that companies in Romania are currently facing. Thus, the development of dual vocational education and the intensification of employee training programs in SMEs are mandatory requirements, given that only 24% of Romanian enterprises provide training for employees.

In our opinion, companies operating locally should be the engine of both balanced territorial development and sustainable development. In this regard, our researches focused on finding the mechanisms, means, techniques and methods by which the asymmetry of the financial side of economic development at the territorial level could be reduced, in line with the objectives of sustainable development at national and regional level.

Starting from a multitude of information from the literature, from the world development experience at the territorial level and from the real economy of Romania, I came to the conclusion that at the local level, together with the public services, there are a series of activities that are provided directly for the benefit of the community and are not the responsibility of local public administration, such as local trade, passenger transport, local tourism, etc. and which should be the core of the activities to ensure the needs of communities at the local level.

Paradoxically, it is precisely in our country that the administrative doctrine constitutes the biggest obstacle to the territorial development of these types of companies. Although there is a favorable legislative framework that allows public services to be provided in private, there are many cases when they are carried out by the local public administration but at a level predominantly determined by sources and financial resources below the appropriate level.

An alternative to the present state is the local economic development, a concept proposed by us and which attempts to solve the problems related to the interconnection of different localities

(entities of size and with different economic and social structures) but which share a certain purpose. The public-private partnership thus acquires another dimension in the territorial context, the ultimate goal being to meet the needs of the population in that area. And, of course, within this partnership, local businesses that work in local communities, which are designed to meet certain needs of the population (goods and services), should be a central place.

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CONVENTIONAL AND UNCONVENTIONAL ENERGY RESOURCES

Raluca Ana-Maria DUMITRU[110]

Abstract

Economic development, economic structure and energy efficiency measures are the main factors influencing domestic consumption of primary energy. The main restriction is the limited nature of internal fossil fuel resources and declining domestic production trends, which leads to increased dependence of the country on primary energy imports.

An accurate assessment of the possibilities to meet the need for primary energy resources in perspective must start from the current situation of certain reserves, correlated with the realistic estimation of potential resources and closely related to the projected consumption of resources determined by final energy demand.

Key words: energy infrastructure, renewable energy, conventional and unconventional energies, energy potential, energy resources.

JEL Classification: K32, O1, P28, P48, Q01, Q4, Q5.

Regarding exhaustible energy resources, a fair assessment of the possibilities to meet the needs of primary energy resources in perspective should start from the current situation of safe reserves, correlated with a realistic estimation of potential resources and in close interdependence with the projected consumption of resources by the demand for final energy.

Thus, it is estimated that lignite reserves can ensure their efficient exploitation for about 40 years at a production level of about 30 million tons/year[111]. In the lignite extraction sector, the level of state intervention is diminished, being restricted to subsidies only for underground exploitation, a subsidy that will be eliminated over time.

As regards the huila[112], the restriction of the perimeters and the closure of the non-performing mines led to the situation in which only about 30% of the total geological reserves of coal are still found in the CNH-SA concession perimeters. According to the recently adopted EU Directive, the European Union allows the continuation of the subsidy for the exploitation of the coal by 2018 and makes this conditional on the strict application of a mine closure program that generates losses. It can be estimated that the evolution of production costs, the extra costs of CO2 emissions and the abolition of subsidies on production (demanded by the EU) will lead to a further decrease in the competitiveness of the domestic production and the significant reduction of production.

Current oil reserves are estimated at 73.7 million tonnes and annual crude oil production dropped from 14.7 million tonnes in 1976, when production peaked to 5 million tonnes in 2006.

Also, natural gas reserves are limited, and after 1990, domestic production is declining. Current gas reserves are estimated at 184.9 billion m.c. Annual gas production was 12.3 billion m.c. in 2006, which accounted for 69% of the national annual consumption of total natural gas.

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[110] *"Costin C. Kiriţescu" National Institute of Economic Research, Romanian Academy, Bucharest, Romania, PhD, email: raluca_dumitru1@yahoo.com*

[111] *Annex to Government Decision no. 1.069 / 5 September 2007, regarding the approval of the Romanian Energy Strategy 2007-2020, published in the Official Gazette of Romania, Part I, no. 781 / 19.XI.2007, in accordance with art. 4, par. (1) of the Electricity Law no. 13/2007, as amended and supplemented, chapter 3 (3.1). Lignite resources in Romania are estimated at 1,490 million tonnes, of which 445 million tonnes are exploitable in perimeter concessions. Resources located in new non-concessional perimeters are 1,045 million tonnes. Of the reserves of 1,045 million tons of lignite in Oltenia's mining basin, 820 million tons of new perimeters are located in the continuity of the concession perimeters, presenting the most favorable conditions for capitalization, by extending the concessions. Since the lignite deposit in Oltenia consists of 1-8 layers of exploitable coal, their superior valorization requires the urgent adoption of regulations that guarantee rational exploitation in total safe conditions (minimum losses) and in terms of efficiency.*

[112] *Idem. The known coal resources in Romania are 755 million tons, of which 105 million tons are exploitable resources in concession perimeter.*

The Romanian deposits are situated in complex geo-mining conditions and the mineralogical characteristics that influence the quality are at the lower limit. From an economic and energy perspective, for the production of electricity, indigenous honey without subsidies becomes a marginal source. According to the state of national primary energy resources, it is relevant that with the exception of renewable energy sources, lignite is the only primary source of primary energy resource that can significantly contribute to securing electricity consumption needs in the next 2-4 decades.

Existing and exploitable ore reserves ensure the demand for natural uranium up to 2018 for the operation of two nuclear power plants at the Cernavoda site[113].

Therefore, it is appreciated that the primary energy production in Romania is based on the exploitation of fossil reserves of primary energy, coal and hydrocarbons, and uranium ore, and in the most optimistic situation it will not increase in the next 20-30 years.

For this reason, the increase in the demand for primary energy in Romania will be possible by increasing the use of renewable energy sources and by imports of primary energy, gas, coal, crude oil and nuclear fuel. At the level of the analyzed horizon, our country will remain dependent on primary energy imports, the degree of dependence being influenced by the discovery of new exploitable domestic resources, the integration of renewable energy sources and the success of measures to increase energy efficiency.

According to the latest assessments, Romania's technically renewable hydropower potential is about 32,000 GWh / year. At the end of 2009, the power installed in hydroelectric power stations was 6,450 MW, the energy for the average hydrological year being estimated at 17,340 GWh / year. Thus, at present, the degree of utilization of the technically feasible potential is 54%.

With the exception of large hydropower plants, the costs of producing electricity in units using renewable sources are now higher than those related to the use of fossil and nuclear fuels. Stimulating the use of these sources and attracting investments in energy units using renewable sources is done through support mechanisms, in line with European practice, which also lead to an increase in the price of electricity to the final consumer.

The realistic potential of wind and hydroelectric power is substantially lower than the technically viable, due to environmental restrictions (sites with a ban on use), and it is useful to develop studies on the impact of wind turbines on bird migration, especially in the south-east of the country, the definition of a clear and unique map of areas where wind and hydroelectric units are not suitable for environmental reasons.

The use of renewable energy sources has a significant impact on the national electro-energetic system, being useful:

- studies on the impact of the take-up of electricity produced by wind turbines and cogeneration, using biomass in the transmission and distribution network (110 kV or higher), in areas with high potential;

- the development of distribution and transport networks in the concept of smart grid;

- the construction of new capacities for the production of electricity with increased flexibility in the operation and development of the capacity market to counteract and / or limit the negative effects of the uncontrollable variability of wind energy and micro-hydropower.

A key element of the energy strategy is the improvement of energy efficiency, which has an important contribution to achieving security of supply, sustainable development and competitiveness, saving primary energy resources and reducing greenhouse gas emissions.

The representative synthetic indicator on energy efficiency at national level is given by the energy intensity and the energy consumption for producing a unit of gross domestic product[114].

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[113] Potential new perimeter uranium ore deposits can not significantly change this situation, which requires the adoption of specific measures to ensure natural uranium resources according to the needs of the nuclear energy development program.

Electricity intensity has evolved favorably, although it has fallen by 10%, almost twice as high as the European Union average.

Starting with 2003[115], account is also taken of the economic potential of increasing energy efficiency in different sectors. As a result of this strategy, it was established as a strategic objective in Romania the improvement of energy efficiency throughout the chain: natural resources, production, distribution, transport and final use, using optimal market economy mechanisms until 2015 a decrease of about 3% per year of energy intensity on the national economy as a whole.

Improving energy efficiency[116] is one of the most important strategic objectives for Romania, given that in the structure of the national economy and in particular the industry there are still activities that use the energy resources as raw materials, mainly petro-chemistry and the chemical fertilizer industry[117].

The economic development as a whole, increasingly centered on the machinery and service industry, will lead to a decrease in the share of energy intensive activities over time.

Evolution of production and consumption of energy

Domestic primary energy consumption grew by 8.2% between 1999 and 2008, a lower percentage than GDP growth over the same time span (23.9%)[118]. Due to the low level of economic development, the gross energy consumption per inhabitant (1.8 tep / person) in Romania is about twice as low as in the European Union countries.

The beginning of the phenomenon of decoupling the increase of the energy consumption from the economic growth is also registered in Romania, a phenomenon which in the developed countries has been recorded since the first oil shock. At the same time, due to the economic restructuring and the improvement of the energy use, it is also noticeable in Romania the decoupling of GDP growth from the increase of the gross consumption of energy.

The primary energy consumption is balanced between natural gas (36.4%), crude oil and petroleum products (24.2%), but also between coal and coke (23%).

Economic development, economic structure and energy efficiency measures are the main factors influencing domestic consumption of primary energy. The main restriction is the limited nature of internal fossil fuel resources and the tendency to diminish domestic production, leading to increased dependency of any country on primary energy imports.

In Romania, domestic energy production remained virtually constant at about 27-28 million teps due to the limited reserves of primary energy resources. Without the contribution of renewable energy sources, this value will gradually diminish in the coming years.

Taking into account the high costs of capitalizing on renewable sources, it is unlikely that in the medium term the increase in primary energy consumption and the diminution of domestic

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[114] Annex to Government Decision no. 1.069/5 September 2007. The structural adjustment of the economy, as well as the increase in resource efficiency, led to a reduction in the primary energy intensity from 0,605 tep/1000 Euro in 2000 to 0,492 tep/1000 Euro in 2005.

[115] Government of Romania, National Strategy for Energy Efficiency, Bucharest, 2003-2017

[116] Government of Romania, National Action Plan for Energy Efficiency (2007-2017), Bucharest, 2017

[117] Annex to Government Decision no. 1,069 / 5 September 2007. At the level of 2005, 94% of the amount of oil produced or imported was used in petrochemistry. If the import of crude oil is about twice the level of production and its share in the import of mineral products is about 57%, it results that the decrease of the specific consumption in this branch will have a significant positive impact on the energy bill of Romania. In the case of natural gas, consumption as raw material in the chemical industry accounts for about 35% of the import. If the direct consumption of metallurgy (as an energy resource) is added, it can be estimated that about 50% of the natural gas imports is conditioned by the activity in these two branches.

[118] Idem. GDP in 2006 was 42.2% higher than in 2000, amounting to 3.973 euro / place, being about 6.3 times lower than the average value in EU countries and 1.9 times higher lower than the average of the 10 countries entering the European Union in 2004 (NM 10). This economic development led to an increase of only 4,3% of the gross domestic energy consumption in 2005 compared to 2000, and the value achieved in 2005 was about 37,9 million tep.

production will be fully covered by renewable sources, which will lead to an increase in primary energy imports.

Over the past decade, dependence on primary energy imports has continuously increased from 21.5% in 1999 to 27.2% in 2008, with a peak of 31.9% in 2007, the year before the onset of the economic crisis.

The representative synthetic indicator on energy efficiency at national level is given by the energy intensity and the energy consumption for producing a unit of GDP.

Due to the structural changes in the economy and the emergence of new energy-efficient economic units, the intensity of primary energy has decreased significantly in recent years.

On 1st January 2010, the power available in the power system was 17,693 MW. About 80% of the thermo-energetic groups in Romania were installed between 1970 and 1980, and nowadays the standard life is exceeded. The thermal power plant park has low performance due to the technologies of the 1960s and 1970s and physical wear[119]. Most of the thermo-power capacities are not yet equipped with efficient pollution abatement facilities, and SO_2 and NO_x emissions are above the maximum allowed values in the European Union[120]. In the last 10 years some thermoelectric plants representing about 10% of the installed power have been upgraded / refurbished and environmental compliance works are under way at most of the thermal power plants.

The heat supply in the centralized distribution systems is achieved through thermal power plants and district heating plants, but total heat consumption has decreased slowly over the last few years, mainly due to the decrease in industrial consumption[121]. At the same time, the current centralized heat supply systems are characterized by obsolete low-efficiency (co-generation) and large transmission and distribution losses (between 10% and 50% in some cases), generating high production costs and the distribution of thermal energy and the diminution of the quality of services and the increase of the energy bill for the population. As a measure of social protection of the population, in order to decrease the expenditures on housing maintenance, given the usefulness of reducing energy consumption at residential blocks, the Government of Romania adopted the Emergency Ordinance no. 69/2010 on the thermal rehabilitation of residential buildings, financed by government guaranteed bank loans and subsidized interest.

With an outdated standard life, the hydropower groups have an installed power of 6,450 MW (31% of total installed power). After 2000, production capacities of about 1,000 MW were rehabilitated through modernization and modernization. Unit 1 from Cernavodă NPP (707 MW) is in operation since 1996. In the second semester of 2007, the unit no. 2 from Cernavodă started its commercial exploitation, thus ensuring the doubling of the national electricity production of nuclear origin (20.3% of the total production).

Distribution networks have an advanced degree of physical wear (about 65%) of low, medium and high voltage (110 kV) power lines, transformer stations and transformer stations. Moral wear is added to this, with 30% of the installations being equipped with appliances produced in the 1960s. Its own consumption in distribution networks, including trade losses, as an annual average is well above the EU average of 7.3%.

Approximately 69% of the total length of the national gas transmission system is overdue. Of the total control and measurement stations, about 27% have been in operation for more than 25 years. Natural gas distribution networks are characterized by the increased wear and tear of pipelines and pipelines, approximately 40% of which have a normal life span.

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[119] Idem. The yield is about 30%, except for some rehabilitated coal groups reaching 33%. These yields represent only 65-70% of the performance of modern groups, which are currently operating in most developed European countries.

[120] All the thermo-energy groups that remained in operation after 2014 must comply with the environmental requirements of Order no. 859 / 29.09.2005 of the Ministry of Administration and Interior. Failure to meet these groups' compliance with European Union rules by the indicated date will result in a ban on their operation after the expiry of these deadlines.

[121] Idem. In 2006 the total consumption of 9 million tep, of which the consumption assured through centralized distribution systems represents 2.6 million toe, respectively about 30%.

Underground storage capacity of natural gas has grown to about 4 billion cubic meters.

The national oil pipeline system has a transmission capacity of about 24 million tons / year. The transport capacity was used up to a maximum of 60%. The system has entered into a comprehensive rehabilitation and upgrading program since 1996.

According to the estimates of the National Institute of Statistics, 45% of Romania's population lives in rural areas, mainly engaged in agriculture or other rural activities. Although 98% of households benefit from electricity, only 7% of them are connected to natural gas distribution networks. Therefore, the main fuel used for heating and food preparation is biomass (wood, wood waste or agriculture), and 98% of households use stoves for heating. Only 2% of households are equipped with centralized heating systems, but they also use a large proportion of solid fuel stoves (biomass) to cook.

Uranium ore production has declined steadily over the past decade due to the closure of production capacities on the grounds of economic non-profitability or the depletion of geological reserves. This production was processed and refined to the uranium octoxide intermediate product.

As a result, the primary energy production in Romania, based on the exploitation of fossil reserves of primary energy, coal and hydrocarbons, and uranium ore, in the most optimistic situation, will not increase in the next period.

Energy consumers market

Recent developments in Central and Eastern Europe highlight the development of market-based models based on different options and the projects are not fully convergent. There is a diversity of views of the main stakeholders involved in the optimal solution for achieving market integration in this region. The national electricity markets in this region are characterized by varying degrees of maturity and liquidity levels.

The South Eastern Europe Energy Community Treaty (in force on 1 July 2006) aims at creating a regional, efficient and efficient electricity and gas market in South-Eastern Europe, closely linked to the European Union's strategy and vision[122].

In Romania, in 1996, it started the creation of functional markets for electricity and natural gas and was based on:

- restructuring of the energy sector by separating the production, transport, distribution and supply activities of electricity and natural gas;

- ensuring regulatory access to transmission and distribution networks, in conjunction with the progressive opening of the electricity and gas markets, thus fostering competition in energy and natural gas supply and production;

- creating the institutional framework for the regulation of the electricity and natural gas sectors;

- transposing the provisions of Directive 2003/54 / EC on common rules for the internal market in electricity and Directive 2003/55 / EC on common rules for the internal market in natural gas and the application of Regulation 1407/2002 / EC which refers to the operation of the European Union's free-market coal producers;

- the issue of related secondary legislation (wholesale electricity trade code, performance standards, technical codes, framework contracts etc.).

The signatory countries have pledged to implement the EU acquis on energy, environment, renewable sources and competition, with specific reference to compliance with the relevant EU legislation, and these countries have undertaken all appropriate measures to ensure the fulfillment of their obligations and the requirements of the Treaty.

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[122] The EU started the liberalization of electricity markets in 1996 through Directive 96/92/EC and the gas Directive through Directive 98/30/EC of 1998. By Regulation 1407/2002/EC laid down the functioning of the coal extraction industry, under the conditions of the free market after 2011.

Romania has opted for the decentralized market for electricity and natural gas, in which the participants free-to-sell electricity-purchase transactions.

The electricity market consists of the wholesale market where electricity is purchased for resale and transactions are carried out between licensed producers and suppliers and, respectively, the retail market where electricity is bought for consumption, and transactions take place between suppliers and consumers of energy.

The regulation of activities having a natural monopoly (distribution and transport) was based on principles of transparency, non-discriminatory access to the network and recognition of justified costs. The regulated tariffs for the use of networks are calculated on the basis of the methodologies of the ceiling type since 2005.

In 2000, the electricity market started to open, and since 2005 all consumers, except households, have become eligible, which corresponds to a 83.5% opening of the electricity market. The full liberalization of the electricity market, including for domestic consumers, took place on 1 July 2007.

In 2005, the wholesale electricity market expanded and improved by introducing four new trading platforms: the next day market, organized and managed by the wholesale electricity market operator, the Opcom society; the balancing market, organized and managed by Transelectrica; the centralized market for bilateral contracts and the centralized green certificates market, organized and managed by the Opcom society[123].

This market model is adopted by all developed European countries. Since 2007, Romania was the only country in the region organizing a market for the next day and a functioning balancing market. Thus, in addition to trading through contracts, participants in the wholesale electricity market have the opportunity to participate voluntarily in a short-term physical energy market (the next day market) operated by the Opcom society. The balancing market is primarily intended to offset deviations from the programmed values of electricity production and consumption, making it mandatory for all available production capacities. The centralized and forward-looking bilateral markets ensure the transparency of bilateral contracting, while meeting the recommendations of the European Commission, the European Council of European Regulators and the World Bank for the establishment of a regional stock exchange contract.

Support for the production of electricity from renewable sources takes place through green certificates traded on the competitive green certificates market and mandatory quotas for suppliers. Each supplier has the obligation to acquire annually a quantity of green certificates, directly proportional to the amount of electricity sold to consumers by that supplier. Transactions with green certificates can take place within the centralized market operated by the Opcom society or by bilateral contracts. The Opcom society manages the Centralized / Bilateral Green Certificates Market and the Green Certificates Register.

Natural gas is produced by 98% by two companies, Romgaz and Petrom, while the remaining 2% is represented by other companies. Of the total national production, about 62.5% is extracted on the Territory of Mureş County.

The internal gas market is made up of the competitive segment, which includes the sale of natural gas between suppliers and between suppliers and eligible consumers, and prices are formed freely, based on demand and supply, and the regulated segment, which includes activities of a natural monopoly and supply at a regulated price based on framework contracts.

The price and tariff systems are set by ANRE in the regulated market segment based on their own methodologies[124].

Activities related to the regulated segment include:

- supply of natural gas at regulated prices and on the basis of framework contracts to consumers;

- administration of trade and contractual balancing of the internal market;

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[123] *Romania's energy strategy project, Chapter 3, point 3.6, in http://www.adevarul.ro/financiar/Descarcati_de_aici_Proiect_strategiei_energetice_a_Romaniei_2011-2035_Draft_I_ADVFIL20110123_0005.doc, accessed on 26.04.2018*

[124] *Idem. Romania's energy strategy project.*

- natural gas transport;

- underground storage of natural gas;

- gas distribution;

- transit of natural gas, except transit through dedicated main pipelines (transit through dedicated main pipelines is subject to the regime established by international agreements on the basis of which they were made).

In order to ensure an organized framework for equitable and non-discriminatory allocation of natural gas from domestic and imported production, the market operator, organized within the National Gas Dispatch Center Bucharest, from the structure of Transgaz S.A. Medias.

In order to ensure the consumption needs of all categories of consumers and to eliminate the malfunctions occurring in the domestic gas market during 2005-2006 (in winter, due to the low temperatures and the decrease of the imported natural gas quantities in January and February 2006), the draft law transposing Directive 2004/67 / EC on measures to safeguard security of natural gas supply was drafted. The interruptible consumer contributes decisively to maintaining the full functioning of the National Gas Transmission System and Distribution Systems by accepting the reduction in consumption until it stops, according to the provisions of Directive 2004/67 / EC, in order to ensure the protection of the consumers' supply households.

With regard to the coal market, given the characteristics of the coal extracted in Romania (energy coal with a calorific value of 3,650 kcal / kg and lignite with a calorific value between 1,650 and 1,950 kcal / kg), it is assumed that the latter can be used only in thermal power stations equipped for this type of fuel and located as close as possible to the lignite suppliers. The coal supply to current producers in Romania is 33-34 million tons, a demand of about 5 million tons lower than estimated for 2010-2020. For the period 2013-2020 and after this period, the demand for lignite is conditional on the highlighting of existing perimeters, as well as research, for the relief and capitalization of new perimeters. At the same time, expropriation procedures for public utility reasons need to be improved to make lignite surface operations more efficient. Uranium ore resources available to Romania are of great interest to the national economy, taking into account the operation of Units 1 and 2 of Cernavodă, but also a future development of the nuclear energy program, which is why the operation and preparation uranium ores and refining of technical concentrates is of strategic interest.

The uranium ore produces the sinterable material of uranium dioxide powder, which is used in Romania for the manufacture of nuclear fuel destined for the nuclear power plants of Cernavodă[125].

Romania does not have a uranium market, the only supplier being the National Uranium Company, and the price is negotiated between the supplier and the user, namely „Nuclearelectrica" National Company S.A.

In order to ensure the raw material for the production of nuclear fuel, useful for the operation of the two nuclear power plants, but also for the functioning of units 3 and 4 in perspective, it is necessary to take the risk of opening a new national production capacity and to provide a useful legislative framework worldwide for uranium ore concessions in order to exploit or import uranium ore deposits or technical concentrates. Globally there is a highly developed uranium market with a high degree of stability, with significant uranium reserves in conflict-free geographical areas.

Conclusions

In conclusion, with regard to exhaustible energy resources, a correct assessment of the possibilities to meet the needs of primary energy resources in perspective must start from the current situation of safe reserves, correlated with a realistic estimation of potential resources and in close interdependence with the consumption forecasts of resources determined by the demand for final energy.

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[125] *http://www.economica.net/centrala-de-la-cernavoda-are-un-nou-furnizor-de-uraniu-cameco-inc-din-canada-totul-despre-aceasta-firma_115230.html*, *accessed on 27.04.2018*

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ABOUT PROCEDURAL FALSIFICATION IN THE SOCIAL JUSTICE

Gabriela-Mariana IONESCU[126]

Abstract

The quasi-impossibility of predictability in the social field makes scientific assumptions (or outcomes) subject to factual testing (Popper's falsifiability). In this context, the study examines the possibility of developing a second-order testability, i.e., testability of the testability. For this purpose, the general coordinates of a procedural test to test the factual (primary) test are developed. The study uses a methodology of logical and conceptual analysis, finally providing a methodological algorithm on the concept of procedural testing with direct application to social justice. Associated with this result is the proposal to classify the social factuals in: a) empirical factuals; b) methodological factuals. The usefulness of the study relates to "saving" testability in the social field (including the economic field) by switching from factual falsification to procedural one.

Keywords: *social justice, testability, procedural testing, algorithm, factual*

JEL classification: *B49, E02, P16*

Introduction

The study of testability in the social field highlights a certain feature, namely that it is difficult and in some cases impossible to apply the principle of direct factual testing (Popper, 1981). The three methods of testing the truth of a statement, the verifiability (proposed by logical positivism), the falsifiability (proposed by Karl Popper) and the confirmability (also proposed by logical positivism), each with its own attributes to test the truth of a statement, recommend choosing the confirmability for the design of a procedural test that could be used in the social field, more specifically in the field of social justice (Dinga, 2018).

The process of confirmability is recommended in the cases where the realization of the experimental conditions for direct factual testing, by means of the falsifiability criterion, is impossible or exhibits uncontrollable deviations from the conditions of the hypothesis (against the conditions required by the predictive statement). The questionable character of direct factual test experiments by falsifiability in the natural field consists in to non-recognize the result of an experiment. Even more so in the social field where the "procurement" of factual through observation, measurement and recording is much more difficult and disturbed by many factors outside the control of the experiment, is necessary to use such a criterion to test factual truth through a test of the order two, i.e. by testing the testability.

By applying the confirmability criterion, we will achieve a non-ambiguous outcome with regard to testability itself. In other words, applying this criterion tells us that if we test directly the factual target in the predictive statement, it will certainly provide a non-ambiguous result, either of corroboration (in Popper's terminology) or of invalidation of the prediction, but, of course, does not tell us what the result of direct testing is. From a logical point of view, a testing procedure based on the confirmability criterion gives a direct response not on the hypothesis tested but on the possibility of testing that hypothesis, i.e. on the possibility of providing a non-ambiguous answer to the testability of the hypothesis. Using the confirmability criterion, this paper proposes the designing of a procedural test criterion in the sense of falsification of the factual testing capacity.

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Description of the Problem

Designing and developing such a testing procedure involves first of all defining the main concepts that will be used throughout the article.

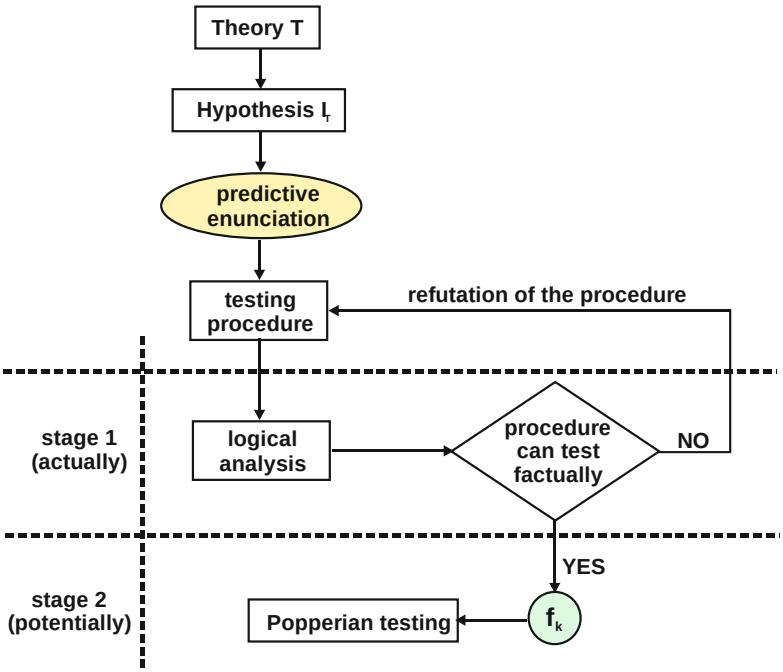
Thus, the concept of procedural falsifiability refers to a falsifiability (i.e. a testability) of the second order, a falsifiability which has as its "factual" the testability of a given factual (a class given by factuals). So that procedural falsifiability is a testability test mechanism that can only have two answers:

a) confirm the testing capacity of the procedure in question;

b) invalidate the testing capacity of the procedure in question.

It should be noted that, in the case of procedural falsifiability, Karl Popper does not raise the issue, namely that of replacing the verification term (specific verifiability), respectively of the confirmation, with the term of corroboration. In the case of procedural falsifiability, the confirmation term is recovered - indeed, the logical analysis of the capacity of a procedure to produce a non-ambiguous answer to eventual factual falsification may lead to confirmation of the existence of this capacity - so we have a confirmation, it is not possible that a subsequent logical analysis of the factual falsification can lead to an opposite conclusion - respectively, may lead to the invalidation of the capacity of the procedure to achieve factual falsification. If, eventually, the validated procedure is actually used for factual testing, it returns to Popper's pair of responses - corroboration / refutation. The following figure graphically illustrates the two "stages" (logical and chronological) of the procedural falsifiability.

Figure 1. The two stages (logical and chronological) of procedural testing



Source: author's research

By proposing a procedural testing of truth, it is in fact proposed to double the Popper's falsifiability criterion:

a) on the testing procedure;

b) on the factual.

To be mentioned that the first application of Popper's criterion is effective and the second application is potential. It is possible that the second application of the Popper criterion (application to the relevant factual) will never occur but, however, for social analysis needs, only the potential character of the application is sufficient, that testability (Popper, 2001) is sufficient to replace effective testing.

Another concept used in the procedure is *procedural testing* by which we understand a testing that has as its object to test a procedure, not a factual one. In other words, the "factual" that is the subject of procedural testing is a methodological artefact. It should be noted that, from a logical point of view, any experiment that concerns a factual fact it is a methodological artefact. In this sense, the specific difference between a proper factual (which will be named throughout the whole article as empirical factual) and a "factual" as a procedure (which will be named throughout the entire article as methodological factual) is that the proper factual - this is subject to a test of veracity (that is, if the predictive statement about that factual is identical, from the semantic point of view, i.e., of the referential, to the descriptive statement from the experiment), while the "factual" of a procedure type is the object of the capacity testing (that is, if that procedure is capable, if applied to a factual fact, to provide a non-ambiguous response in the sense of Popper, that is, standard factual falsifiability).

Procedural testing is also a test of Popper falsification, which is a dichotomous testing, i.e. it has either a positive answer (the testing procedure is capable of testing the factual fact), or a negative (the testing procedure is not able to testing the factual fact) this way it exhausts the spectrum of answers it can provide.

The question of "purity" of procedural falsifiability comes from the perspective of Karl Popper's concept of truth-correspondence testing, that is, of testing the scientificity of a theory / hypothesis. Testing truth-correspondence involves testing on the base of the proper factual, while testing the procedure does not involve the correspondence truth at all. Testing the procedure involves a test that has two attributes: a) adequacy / relevance; b) potential / capacity.

(a) Adequacy / Relevance

Adequacy / relevance testing refers to assessing the compatibility of the testing procedure with the empirical factuals considered. Thus, if we take into account the characteristics of the factual class that could be tested from the point of view of truth-correspondence with the procedure under consideration, it is examined whether the envisaged procedure is logically and methodologically compatible with that class of empirical factuals. This analysis concerns only the appropriateness and not the intrinsic capacity of the procedure to test truth-correspondence. For example, a testing procedure of a truth-correspondence that would require the observation and registration of subjective motivations of consumer actions would not be appropriate, because the external observation of subjective motivations of individuals is not possible.

Assessing adequacy / relevance of a testing procedure should cumulatively answer the following classes of questions:

• whether the procedure can test the targeted empirical factuals class; in other words, if the procedure has experimental access to data / information describing the empirical factuals in question;

• whether the testing of the empirical factuals concerned requires or does not require adjustments to the assessment procedure, or the application of the procedure is without such additional adjustments;

• whether or not the procedure is general, i.e. abstract; this question refers to the characteristics of the testing procedure that makes that procedure capable of testing several empirical factuals classes so that no ad hoc procedure, that is, specific, idiosyncratic, is required for each class of factual empirical. It is noted that this question is, moreover, related to any scientific result which, before being validated by factual testing, is logically tested under its aspects of generality and abstractness.

(b) Potential / Capacity

Potential / capacity testing refers to the functional evaluation of the testing procedure to test, in turn, the truth-correspondence of the targeted empirical factuals. If the adequacy / relevance assessment is of a holistic and qualitative nature, the assessment of the potential / capacity is of a strictly structural-functional nature. In fact, evaluating the potential / capacity of the testing procedure to test empirical factuals is a logical type of assessment that consists mainly of the following:

• the internal (structural and functional) coherence of the tested procedure. This assessment shall be carried out on the following aspects:

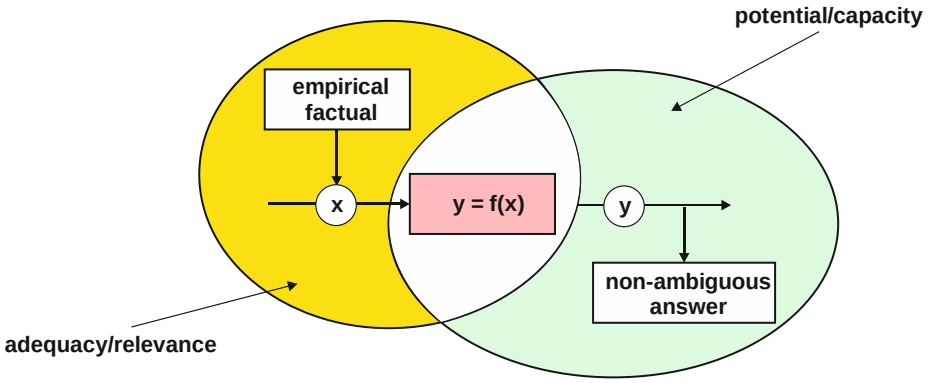
the existence of input logic "devices" (i.e. accepting inputs from empirical factuals that could be tested from the perspective of truth-correspondence);

the existence of the "transformation function" of inputs into outputs (i.e. delivering, in a form accessible to the human analyst, the result of the test of the empirical factuals target);

the ability to provide an answer (i.e. avoiding the situation where the procedure can provide an "undetermined or undecidable" output). This feature of the testing procedure is, in fact, the most important of all because, basically, testing the procedure must ensure that factual testing will be decisive, that is, it will receive an answer, whatever it may be. From a logical point of view, this means that the test procedure is bivalent, that is, it subordinates to the principles of bivalent logic (Aristotle-ian).

the stability of the testing procedure (i.e. the "suitability" of the procedure to provide the same answer when inputs are the same, however many episodes of use would be involved). This property of the testing procedure is important from the perspective of ensuring the certainty of the outcome of the application of the procedure and is, moreover, a version of the principle: the same cause, under the same conditions, creates the same effect. This property may also be called the predictability of the testing procedure and, as is well known, predictability is a necessary property of any model.

Figure 2. Concept of testing the methodological factual to test the empirical factuals.



Source: autor's research

Based on the concept of procedural testing, namely, on the base of the empirical factuals test procedure concept, the article will deal with the next section of the problem of construction of such a procedure from the point of view of the construction stages.

As shown above, the following points will be clarified:

• establishing the empirical factuals class that could (possibly) be subject to truth-correspondence testing by applying the procedure in question;

• designing "inputs" in the testing procedure;

• designing the procedure from the perspective of adequacy / relevance;

• establishing the method / methodology / technique for testing the empirical factuals;

• establishment of the method / methodology / technique by which the response of the empirical factuals test to the observer / experimentator is delivered;

• designing the procedure from the perspective of the potential / capacity property.

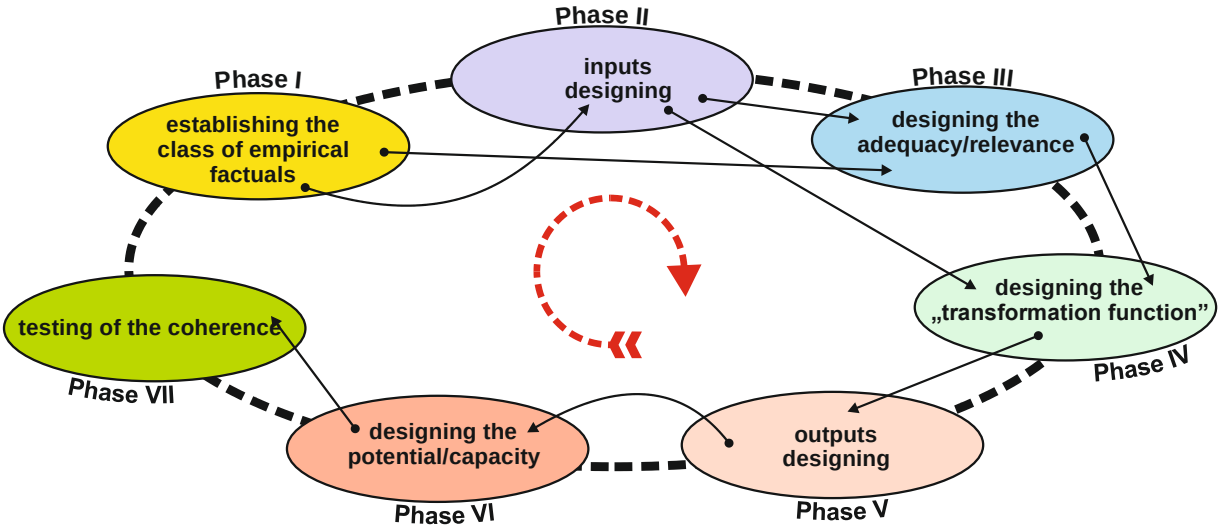
Methodology and Data Sources

The designing of the empirical factuals testing procedure is not confused with the designing of experiment of the factual testing. The distinction between designing of the experiment to testing empirical factuals and designing the procedure to empirical factuals testing is characterized by the following:

- the designing of the experiment results in a particular artefact (refers to a given empirical and idiosyncratic factual), while the designing of the procedure results in a general artifact (it concerns an empirical factuals class, of which, no particular / concrete empirical factuals is known at the time of designing);
- the designing of the experiment is aimed at a single testing (only one single testing, only one empirical factuals is targeted), while the designing of the procedure refers to a testing class, thus a class with an indefinite number of testing;
- the designing of the experiment is aimed at an effective testing (after the designing of the experiment, the experiment is actually tested) while the designing of the procedure is aimed at a possible testing (the designing of the procedure does not imply its application for the actual testing of an empirical factuals of the empirical factuals class in sight);
- the designing of the experiment is not adjustable ("it is of „single use"), while the designing of the procedure is adjustable (depending on its behavior in cases of actual application on the empirical factuals for which it was designed);
- the designing of the experiment refers to truth-correspondence, while the designing of the procedure refers to truth-coherence;
- the designing of the experiment follows an ambiguous verdict (if the result of empirical testing is corroboration, nothing can be said about the theory / hypothesis teste;, only if the result of empirical testing is refutation, it can be said with certainty that the theory / hypothesis was rejected) while the designing of the procedure follows a non-ambiguous verdict.

The construction of the test procedure involves seven logical and chronological stages, so each stage will be built from the previous step (or from some of the previous stages in their interconnection). Figure 3 shows the process of building the testing procedure.

Figure 3. Logical scheme of designing of the testing procedure

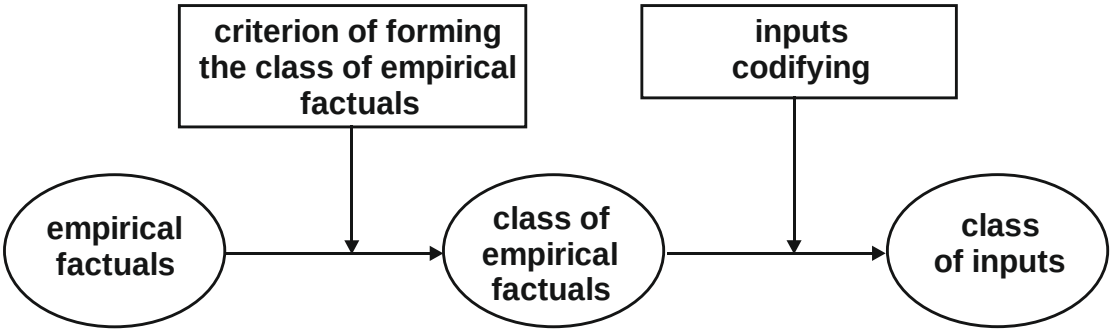


Source: autor's research

A feature of this testing procedure is that it is not specific to a particular empirical factuals (as is the case with the experiment), but neither is it universal. It is "customized" to a class of empirical factuals, identified / selected on the basis of predetermined criteria (in the article we refer to a procedure for testing empirical factuals from the class of social objects related to social justice). It can be said that such a procedure should be considered as a sectoral procedure. In the first step, therefore, it is necessary to identify the empirical factuals class for the experimental testing of

which the procedure in question is built. Let's note with c_i^k a number of i criteria designed to form the empirical factuals class k ($i = \overline{1, n^k}$). Based on these criteria empirical factuals will be identified / selected $f_j^{c^k}$, ($j = 1, m^k$) so those empirical factuals that form the class k on which the testing procedure under construction is to be applied. Each factual will also need to be associated with a quantifier that is accepted by the input methodology (acceptance of the inputs) of the procedure (for example, the quantifier can be numeric if it is economic or social indicators registered by official statistics). This phase of building the procedure can be called the encoding phase of the input. Figure 4 describes the design / establishment of the empirical factuals class.

Figure 4. Establishing the empirical factuals class to design the testing procedure



Source: autor's research

In the second stage we will design the inputs in the testing procedure of the empirical factuals and we have to consider the followings:

the nature and configuration of the actual experiment that eventually would have been achieved for the use of the truth-correspondence testing procedure for empirical factuals in the already established / identified class. The actual (possibly) experiment differs in the social field (where the use of procedural testing is recommended), from the natural one (where no procedural testing is required, but direct testing of the truth-correspondence applied to empirical factual situations). From this reason, the procedure must contain a step in which it is needed to specify the general (logical and chronological) structure of the eventual experiment applied directly to the empirical facts;

the "input" echelon that is significant (i.e. statistically sufficient) to "challenge" a response from the testing procedure. This concerns the size of the data series, its (spatial and temporal) structure and, as far as possible, the quality of the data in question.

Stage III aims at designing the adequacy / relevance of the testing procedure. As we have shown so far, the adequacy / relevance of the testing procedure is one of the two conditions of sufficiency for such a procedure. Consequently, it must be designed with particular care since, in fact, this characteristic is capable of invalidating the testing procedure itself and, consequently, invalidating the answer generated by the application of the procedure to the testing of empirical factuals. Obviously, designing the adequacy / relevance of the testing procedure is closely related to Stage I and Stage II respectively.

The fourth stage envisages the designing of the "transformation function" of the testing procedure which itself carries out the testing mechanism (potentially) applicable to empirical factuals, it will logically explain by what is called, in the system theory, black box. This stage has two components, a structural component and a syntactic-functional one.

(a) the structural component

It refers to the logical "links" of the transformation function $y = f(x)$. More precisely, for algebraic operators or, if applicable, for logical operators that, applying the inputs as they were designing above, generate outputs. From a technical point of view, designing of this component will result in two categories of transformation operators:

- algebraic operators: are those operators (or functions) that apply algebraic transformations to inputs - typically statistical transformations: sums, averages, indices / rhythms, marginal variables, elasticity, etc., obtaining quantitative variables (dimensional) relevant to generate outputs;

• logical operators: are those operators (or functions) that apply to the inputs of logical transformations (logical calculation) - as a rule, transformations of propositional or prediction logical expressions as appropriate: ordinances / hierarchies, positions, classifications (classification in classes), validation / inferential invalidations, etc., relevant for generate outputs;

(b) the syntactic-functional component

It refers to the temporal and logical concatenation of algebraic operators, logical operators, and both categories, so as to obtain the response of the testing procedure, whatever it may be. As stressed above, the testing procedure must necessarily provide a unique and non-ambiguous response. Making this component creates the operational conditions for this property of the test procedure. From the semiotic point of view, the procedural discourse will be projected at Stage IV.

Stage V involves designing the outputs of the testing procedure and, of course, refers to the designing of the response mechanism of the procedure in question. So, after the inputs have entered the "transformation function" mechanism, by applying algebraic operators, logic ones and their combinations, the testing procedure will form the output, in which case we will formulate a response by applying it to the factual empirically targeted. This output is, in the first instance, a response in "machine language," i.e. a response in algebraic, logical or mixed form. Thus, the answer is to be "translated" into the language of the observer / analyst, i.e. in a natural language understood by this observer / analyst. Through symmetry with encoding inputs, which are expressed from the natural language of the observer / analyst, in the "machine language", the outputs must also be translated from "machine language" into the natural language of the observer / analyst. In fact, at this stage, we will ensure that the testing procedure can formulate a response in the language understood by the observer / analyst.

The potential / capacity of the test procedure is the second condition of sufficiency (in addition to its adequacy / relevance). The sixth stage in the designing of the testing procedure has the following two aspects: a) assurance on the formulation of a response; b) ensuring the dichotomic type of response (or, what is the same, the unambiguous response).

(a) to ensure about the answer, we will ensure that the "transformation function" of the testing procedure will never output the "impossible to decide" response. Here, it will be taken into account that the testing procedure does not "block" in providing an answer if it is applied to a "real" case, i.e. on an empirical factuals;

(b) regarding to the dichotomic type of response, we will ensure that the testing procedure does not provide a "undecided" or "indeterminate" answer or another with close significance. Therefore, the test procedure will have the analytical capacity to discern, in the case of applying on ~~an~~ empirical factuals, between the two alternatives: positive or negative (or equivalent: yes or no etc.).

The coherence testing is the seventh stage of the testing procedure, which aims primarily at ensuring the reliability of the testing procedure. This refers to the stability of the testing procedure, to ensuring that the application of the procedure to the same empirical factuals will always produce the same answer. It is not acceptable for the testing procedure to wear out and hence provide different responses to identical inputs or to provide identical answers to different inputs, respectively (we specify that this stage or condition of designing of the testing procedure is analogous to the property of any model to be reliable, in other words to provide functional representations of the modeled reality that are stable in relation to that reality).

Obviously, coherence testing is an effect of the two crucial stages in designing a testing procedure, namely Stage III (Adequacy / Relevance Designing), i.e. Stage VI (Potential / Capacity Designing). Generally speaking, the "prototype" of a testing procedure is validated by the 7th stage, which also has a simulation, testing role. Of course, simulating a testing procedure through coherence testing is not infallible but greatly reduces the likelihood that that procedure is liable to provide incoherent responses.

Conclusions

The conceptual conclusions of this article, which address the social field, show that testing statements about their value in truth cannot be done directly, but indirectly.

Logical conclusions from the paper for the social field show that there are two categories of factual: empirical factuals, and procedural (methodological) factuals, respectively; both are of the nature of artifacts (as opposed to the case of natural sciences where empirical factuals are or may be of non-anthropic nature).

From the epistemological point of view, in the social field, it is not possible a directly Popper falsifiability about the truth of predictive statements, verifiability is "recovered", not at the level of testing empirical factuals, but at the level of testing procedural factual, and the truth-correspondence has no significance in the social field, where relevant seems to be the truth-coherence.

From a methodological point of view, the testing of the statements on the empirical factuals has, in the social field, a potential character and not an effective one, the testing is done in two "stages" (two methodological-chronological modules): the first floor - the direct testing, respectively the second floor - indirect testing.

Future Directions to Be Approached

Future research directions will aim to examine the possibility of replacing truth-correspondence with truth-significance (especially truth-coherence) in the social field, by recovering the teleology of social action, the methodological algorithm of procedural testing (testing of the coherence of the testing procedure of empirical factuals) in the field of social justice, the critical evaluation of a possible concept of "procedural truth", the line of the Vienna Circle of confirmability, and the introduction and operationalization of the concept of "procedural truth" in the analysis of social justice.

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THE ANALYSIS OF SUSTAINABILITY-STATIONARITY-STABILITY TRIADA

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Abstract

Clarifying the concept of Sustainability is important for a better understanding of the economic phenomena/processes/systems' response to external shocks.

The paper aims to define the concept of Sustainability in conjunction with the concepts of Stability and Stationarity using the logical analysis-method of sufficiency predicates. Next, I will analyze the relationship between those three concepts.

The results of the paper will be useful in analyzing economic growth models and in formulating public policies. Also, clarifying these concepts is an important step in defining other economic concepts such as Economic Sustainability, Fiscal Sustainability and Institutional Sustainability.

Keywords: *Sustainability, Stability, Stationarity, Sufficiency predicates.*

JEL classification: *F49,O43,R11.*

A. Introduction

The Sustainability, Stationarity and Stability are key-concepts in understanding the economic phenomena. They belong to the same conceptual family having similarities and differences. The present document focuses on elucidating these concepts and analyzing the relationship between these notions.

B. Methodology

To fully clarify these notions, I am using the instrument of logical analysis-method of sufficiency predicates. This method implies the use of concept's attributes that fully describe the analyzed notion. (Dinga E., 2009, page 91)

Hence, we may define the abstract concept AC as being the set comprised of the predicates that fully describe the notion:

$AC_{=} \{P_1, P_2, ..., P_n\}$ (1)

Where: Abstract Concept-AC

Sufficiency Predicates-$P_1, P_2, ..., P_n$

Therefore, the process of defining the abstract concept AC implies the following steps:

1. **Identifying the list of attributes**/sufficiency predicates that describe the abstract concept AC
2. **Qualitative analysis**
   i. Completeness- verifying if the list of the identified attributes fully describes the concept
   ii. Independence- checking the independence of the pairs of attributes
   iii. Consistency-checking the consistency of the pairs of attributes

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C. The Concept of Sustainability[128]

In my opinion, the Sustainability Concept is defined by the following sufficiency attributes:

- Auto-Replication-AR
- Preservation-P
- Conservation-C

In conclusion, from logical point of view, the concept of Sustainability is described by the following equation:

$$S = (AR) \wedge (P) \wedge (C) \quad (2)$$

Where: $\wedge$- symbol for logical conjunction; S-Sustainability; P-Preservation; C-Conservation

Consequently, I will define the concept of Sustainability as the ability of a phenomenon/process/system to replicate itself and to preserve its capacity of auto-replication while preserving its structure.

i. Completeness Analysis

- Auto-Replication-AR is the ability of a phenomenon/process/system to replicate itself
- Preservation-P is the ability of conservation of the aptitude of auto-replication
- Conservation-C-The ability of a phenomenon/process/system to maintain its parameters within an interval, with or without the help of an external device.

Analyzing these predicates, we may conclude that they completely define the concept of Sustainability

ii. Independence analysis

The independence analysis presumes that none of the attributes is the logical result of another. Therefore, we have the following:

- **AR does not involve P and vice versa**: the ability of a phenomenon/process/system to replicate itself does not involve that the system/process/phenomena has the ability of conserving the aptitude of auto-replication and vice versa- the ability of conservation of the aptitude of auto-replication of a phenomenon/process/system does not involve that phenomenon/process/system has the ability to replicate itself
- **AR does not involve C and vice versa**: the ability of a phenomenon/process/system to replicate itself does not involve that the system/process/phenomena has the ability to maintain its parameters within an interval, with or without the help of an external device to preserve its structure and vice versa- the ability of a phenomenon/process/system to preserve its parameters within an interval, with or without the help of an external device does not involve the ability of a phenomenon/process/system to replicate itself
- **P does not involve C and vice versa**: the ability of a phenomenon/process/system to conserve the aptitude of auto-replication does not involve that the system/process/phenomena has the ability of preserving its parameters within an interval, with or without the help of an external device and vice versa - the ability of a phenomenon/process/system to preserve its parameters within an interval, with or without the help of an external device does not involve the ability of a phenomenon/process/system to conserve its aptitude of auto-replication

In the following tables we may see the results of the Independence Analysis.

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[128] *The clarification of the Concept of Sustainability was presented by the author at the International Conference "Law, Public Administration and Medicine, Liability for Democracy", ICPLA 6th edition, October 26-27th 2017, Tg. Mures, Romania-* ***"****THE RELATIONSHIP BETWEEN ECONOMIC SUSTAINABILITY AND ECONOMIC GROWTH"*

Table 1. The Independence Analysis for Sustainability's list of Sufficiency Predicates

Sufficiency Predicates	AR	P	C
AR	NA	X	X
P	X	NA	X
C	X	X	NA

iii. Consistency analysis

The consistency analysis assumes that none of the predicates is contradictory with another. Therefore, we have the following:

- **AR does not contradict P**: the ability of a phenomenon/process/system to replicate itself does not contradict that the system/process/phenomena has the ability of conserving the aptitude of auto-replication
- **AR does not contradict C**: the ability of a phenomenon/process/system to replicate itself does not contradict that the system/process/phenomena has the ability to preserve its parameters within an interval, with or without the help of an external device
- **P does not contradict C**: the ability of a phenomenon/process/system to conserve the aptitude of auto-replication does not contradict that the system/process/phenomena has the ability of preserving its parameters within an interval, with or without the help of an external device.

In Table 2 we can follow the results of the Consistency Analysis.

Table 2. The Consistency Analysis for Sustainability's list of Sufficiency Predicates

Sufficiency Predicates	AR	P	C
AR	NA	X	X
P	X	NA	X
C	X	X	NA

D. The Concept of Stationarity[129]

The Stationarity Concept is defined by the following sufficiency attributes:

- Invariance-I
- Predictability-PD

Thus, from logical point of view, the concept of Stationarity is defined as it follows:

ST= (I) $\wedge$ (*P*D), (3)

where: $\wedge$- symbol for logical conjunction; ST-Stationarity; PD-Predictability

Therefore, I will define the concept of Stationarity as the ability of a phenomenon/process/system to preserve the value of its status parameter, during a certain period of time, in response to external shocks, without the intervention of external device and to predict the parameter's response to the external shocks.

i. Completeness Analysis

Considering the meaning of the sufficiency predicates Invariance and Predictability:

- Invariance-I- the value of the status parameter remains unchanged under external shocks without the intervention of external devices
- Predictability-PD-the ability of the system to predict the parameter's response to external shocks

[129] The concept of stationarity used here has not the meaning from mathematics. The phenomena/systems/processes characterized by this concept are dependent of time.

we may conclude that they completely define the concept of Stationarity.

ii. Independence analysis

The independence analysis assumes that none of the attributes is the logical result of another. Therefore, we have the following:

- **I does not involve PD and vice versa**: the ability of a phenomenon/process/system to maintain the value of its status parameter unchanged under external shocks without the intervention of external devices does not involve that the system/process/phenomenon has the ability of predicting the response of its parameters to external shocks and vice versa.-the ability of system/process/phenomenon to predict the response of its parameters to external shocks does not involve the fact that it has the ability to maintain unchanged its parameters.

iii. Consistency analysis

The consistency analysis assumes that none of the predicates is contradictory with another. Therefore, we have the following:

- **I does not contradict PD and vice versa**: the ability of a phenomenon/process/system to maintain the value of its status parameter unchanged under external shocks without the intervention of external devices does not contradict the system/process/phenomenon's ability of predicting the response of its parameters to external shocks and vice versa.-the ability of system/process/phenomenon to predict the response of its parameters to external shocks does not contradict the fact that it has the ability to maintain unchanged its parameters.

E. The Concept of Stability

The Stability Concept is defined by the following sufficiency attributes:

- Elasticity-E
- Predictability-PD

So, from logical point of view, the concept of Stability is defined as it follows:

$$S = (E) \wedge (PD) \quad (4)$$

where: Λ- symbol for logical conjunction; S-Stability; PD-Predictability

Consequently, I will define the concept of Stability as the ability of a system to coming back to its parameters' initial values, modified as a result of external shocks, with the help of an external device, and to be able to predict its parameters' response to the external shocks.

i. Completeness Analysis

- Elasticity-E- The parameters of a phenomenon/process/system returns to initial values of the modified parameters, with the help of the external devices
- Predictability-PD- the ability of a phenomenon/process/system to predict the parameter's response to external shocks

Analyzing these predicates, we may conclude that they completely define the concept of Stability

ii. Independence analysis

The independence analysis presumes that none of the attributes is the logical result of another. Therefore, we have the following:

- **E does not involve PD and vice versa**: the ability of a phenomenon/process/system to coming back to initial values of its modified parameters, with the help of the external devices, does not involve that the system/process/phenomena has the ability of predicting the parameters' response to external shocks

iii. Consistency analysis

The consistency analysis assumes that none of the predicates is contradictory with another. Therefore, we have the following:

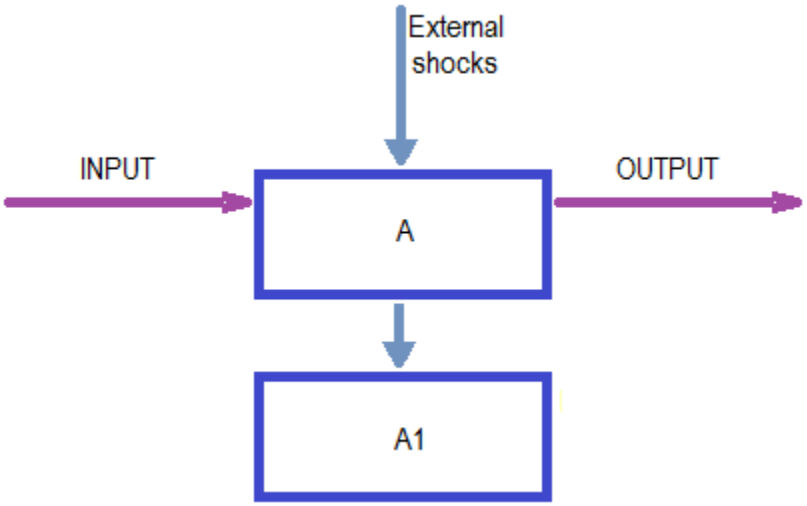
- **E does not contradict PD**: the ability of a phenomenon/process/system to coming back to initial values of its modified parameters, with the help of the external devices, does not contradict that the system/process/phenomena has the ability of predicting the parameters' response to external shocks

F. The relationship between Sustainability, Stationarity and Stability

To analyze the relationship between these three concepts I will show how a stationary, sustainable and stable system responds to external shocks.

The next figure shows how a stationary process/phenomenon/system works under external shocks:

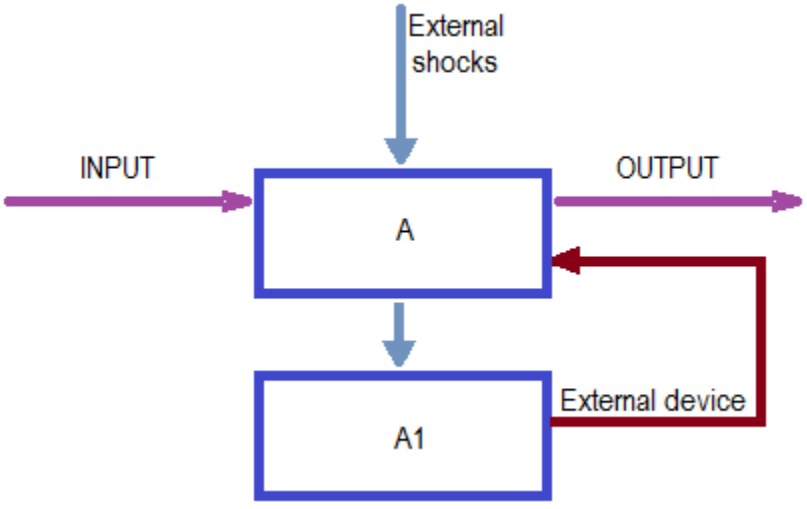
Figure 1. The response of the Stationary System's parameter to external shocks



Source: Author

In our attempt to finding the relationship between Sustainability, Stationarity and Stability we will identify, in the next figure, the response of the Stability System's parameter to external shocks:

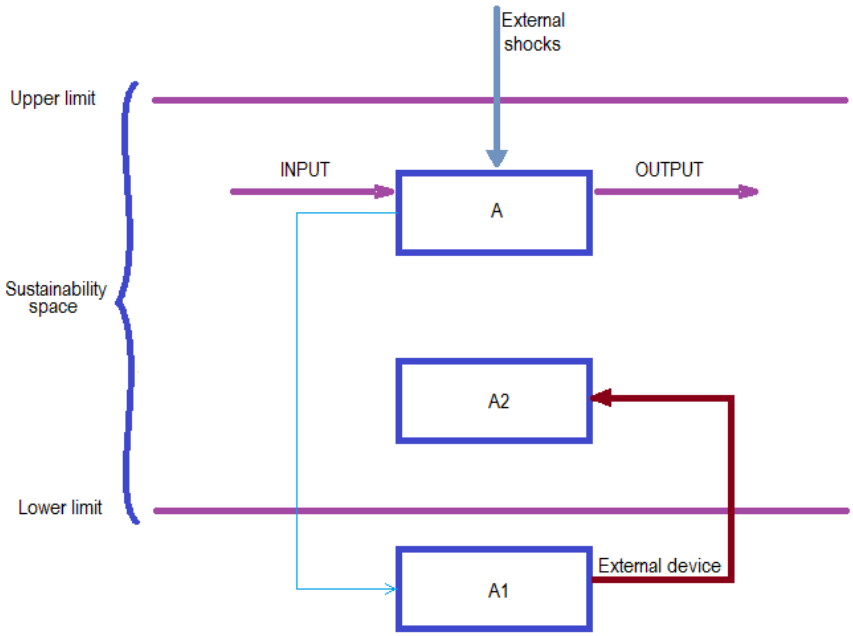
Figure 2. The response of the Stability System's parameter to external shocks



Source: Author

Next figure demonstrates the response of a sustainable system/process/phenomenon to an external shock:

Figure 3. The response of the Sustainability System's parameter to external shocks



Source: Author

G. Conclusions

1. The concepts of Sustainability, Stationarity and Stability are part of the same conceptual family. In the following table we may follow the similarities and differences between Sustainability, Stationarity and Stability from logical analysis point of views (sufficiency predicates):

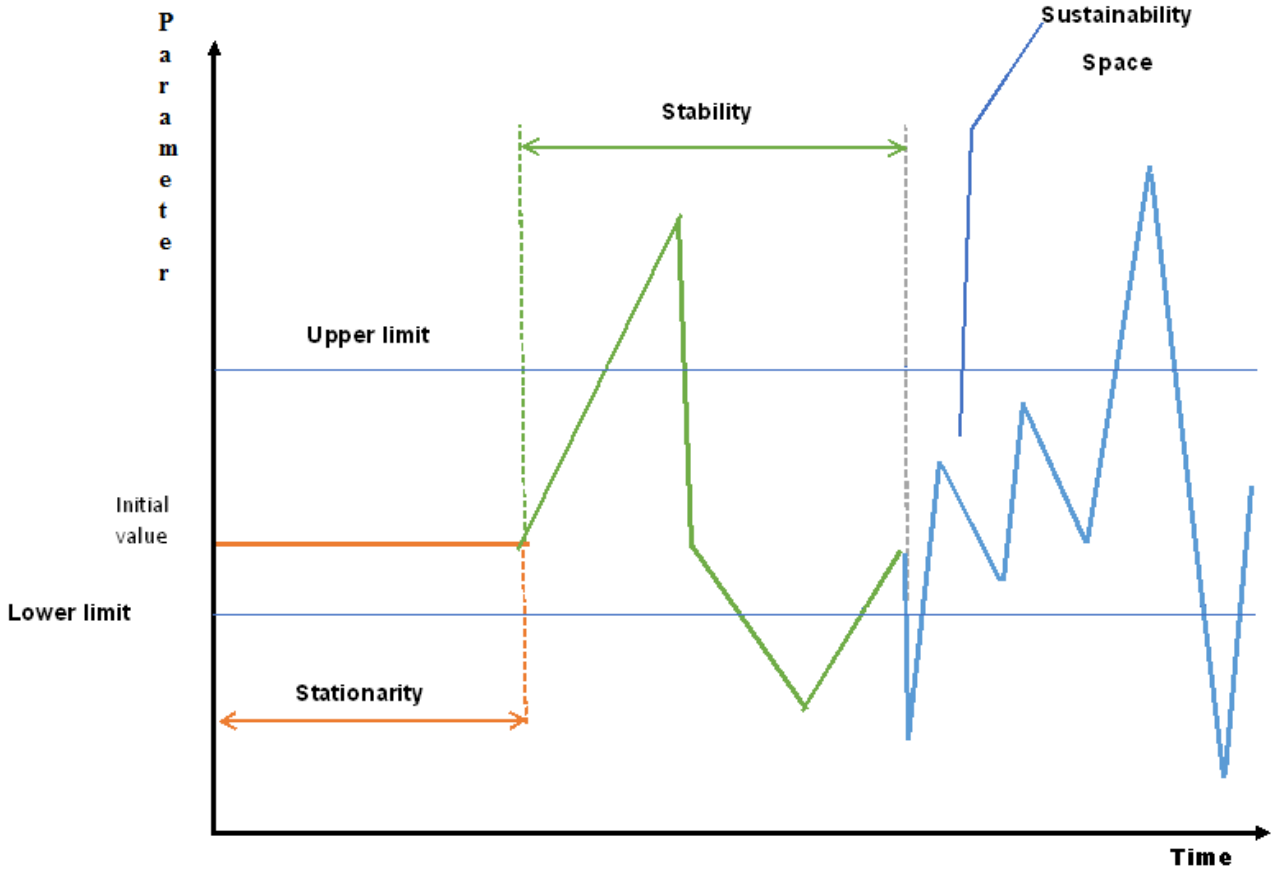
Table nr 3. The relationship between Sustainability, Stationarity and Stability

Attributes / Concepts	AR	P	C	I	E	PD
Sustainability	X	X	X			
Stationarity				X		X
Stability					X	X

The table underlies the fact that the most complex concept out of the analyzed triada is the concept of Sustainability. Even though these three concepts do not share any attributes we may observe that the Sustainability's attribute of Conservation is an extension of the Elasticity attribute of Stability and Invariance attribute of Stationarity. The Sustainability and Stability Concept have in common the need for an external dispositive to function. Moreover, the Stability and Stationarity concepts have in common the attribute of Predictability.

2. The relationship between the Sustainability, Stationarity and Stability is highlighted in the following diagram:

Figure 4 – The relationship between Sustainability, Stationarity and Stability



Source: Author

H. Future Directions to Be Approached

I. The analysis could go further to define the concepts of Institutional Sustainability, Institutional Stationarity and Institutional Stability. And identify the relationship between these concepts. That action would be useful in defining the potential European Fiscal Union.

II. The results should apply to the European Union Institutional System and identify ways (norms, organizations, enforcement mechanisms) that can help in building a sustainable institutional system

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FINANCIAL MARKET TRENDS AND GLOBAL CHALLENGES FINANCIAL NETWORK MODEL (FNM)

Elena Otilia MANTA[130]

Abstrat:

In many advanced economies, the big challenges are due to the increasing inequalities between resource-poor and the impacts of technological change and climate change on the economy, "the complex impact of globalization - including those related to trade in goods, services and data, and the movement of people and capital. In emerging economies, the sharp decline in poverty and an increase in the middle class have fueled higher aspirations and demands for better public goods; these requirements are now facing a slower growth and a tightening of government budgets. The order resulting from the adversity principle has produced economic, financial and ideological polarization. The state in which we find ourselves is where one (a state) controls the whole (globe), manages discretionary global powers, exercises unilateralism of decisions, and favors leveling diversity (including financial). In this global context, identifying support financial resources for those in need is not only a priority for new economic researchers but also a challenge in identifying financial instruments, mechanisms and financial means to ensure societal sustainability.

The process of globalization inevitably leads to the reconsideration (conceptual reconstruction) of the paradigm of growth and economic development. The challenge, on the one hand, of the depletion and / or deterioration of resources (especially natural) and, on the other hand, of our optimization model - maximizing the objective functions of economic actors - is likely to require a radical change the options and the means by which we address this important activity of the individual and society: economic and financial activity. Through this research we observe the existing financial market situation in Romania as well as at global level, as well as the risk in financial networks at global level, namely the modeling of financial networks.

Key words: financial markets, globalization and sustainable development

JEL Classification: E44, F36, F65

Introduction

Sustainable development (or growth) is a direct function of resources of the same category, ie sustainable resources. The subject of this study is the research of a special resource to ensure economic growth (development), namely the financial resource. Studying this resource from a sustainable development perspective will lead us to the proposal and the conceptual, methodological and technological development of what we will call a sustainable financial resource. For its part, the concept of a sustainable financial resource will generate some considerations about the sustainable sources of financial resources - our ultimate goal, on the other hand. As we develop more broadly at the right time, the financial sources for sustainable development are more sustainable financial sources for development. This is not just a game of words but an emphasis on an extremely important idea, namely the idea that points to the depth of the sustainability feature. Since, as will be demonstrated, the financial resource (and, as a consequence, the source of the financial resource) is one of the foundations of any economic process, it is natural that our attention goes to ensuring this foundation in terms of sustainability in order to be able to speak with some justification and confidence about sustainable economic processes (systems).

Methodology of scientific research. In order to underpin the research methodology, the classical observation and examination instruments, research methods based on the basic principles of scientific research, namely: "competence, objectivity, truth, methodical, demonstration, correlation,

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evaluation of results, utility and psychomoral "(Ristea and Franc, 2013). It will use procedures based on factual analysis, intensive documentation at the level of domestic and international literature, using the databases and the scientific material existing in the endowment of the libraries of specific institutes in Romania and internationally.

The methodology of the paper will have as direct instruments the collection of data and information from specialized literature and from existing practice in public and private institutions, but especially scientific articles published on specialized research networks (ResearchGate, Academia.edu, etc.), articles published in different journals, relevant books in the field of reference, legislation, analyzes and studies, official documents of various tax bodies, tax documents and interactive database of the National Bank of Romania, other relevant sources identified at the libraries: CCFM, Academia Romanian, INCE, IEN, BNR, National Library, INS, etc. Moreover, in the methodology we will analyze the documents using the comparative, analytical, descriptive method, the nonparticipative and participatory observation, the use of a set of information sources, the collection of financial data in the established databases. It will also be based on annual reports, publications, consolidated statistical data provided by the National Bank of Romania, the European Central Bank (ECB), the International Settlement Bank (BRI), the European Commission, OECD, published annually, data to be processed in order to be able to provide a general and analytical picture of the most important changes taking place in the European Union as a whole, but also globally - considered to be representative of the understanding of the phenomena studied, and especially in Romania.

Information support for research will be provided by monographs, books, scientific papers, materials of scientific conferences, the balance sheets of SMEs in 2008-2017, as well as other materials, which are presented in scientific papers and publications on the official pages of national and international research institutes, international financial institutions (research centers), etc.

Research results

The international economic, financial, social, cultural, informational flows of history have gradually led to the disappearance of trade barriers, or rather to the harmonization of trade policies and the erosion of national borders, creating the road to the homogenization of the globalized integrated space where identity and sovereignty the national acquire other meanings and interpretations.

The definition of globalization has been presented as internationalization, liberalization, universalization and occidentalization. Conceptual globalism on these lines did not provide analytical added value and was not visible by any means (Scholte, 2002). Bhagwati (2004) provided a definition of globalization based on the economic dimension of globalization, which included the integration of the global economy through trade, FDI, portfolio capital movements and the bank.

There are definitions that go beyond economic, financial and economic boundaries, technological, know-how, and extend to other areas of human activity and cover extensive interconnection networks. Interaction between spatially connected networks can usually take place through the flow of goods and services, finance, information, ideas and people. These may be environment-related. These networks can also be extended to include these networks at local, regional, national and global level. Distance, a continuous variable, counts most in the spatial context. In addition, to be spatially qualified as global, the network of relationships must be multi-country and multi-continental. Simple at national and regional level, links and interdependencies can not be considered as part of the process of globalization.

In order to analyze the phenomenon of globalization, we start in our quarrels from the current situation in Romania, reflected in detail by Prof.univ.dr. Florin Georgescu in his presentation "Banking Capital in Romania, Between Growth Factor and Source of Imbalance," 2017.

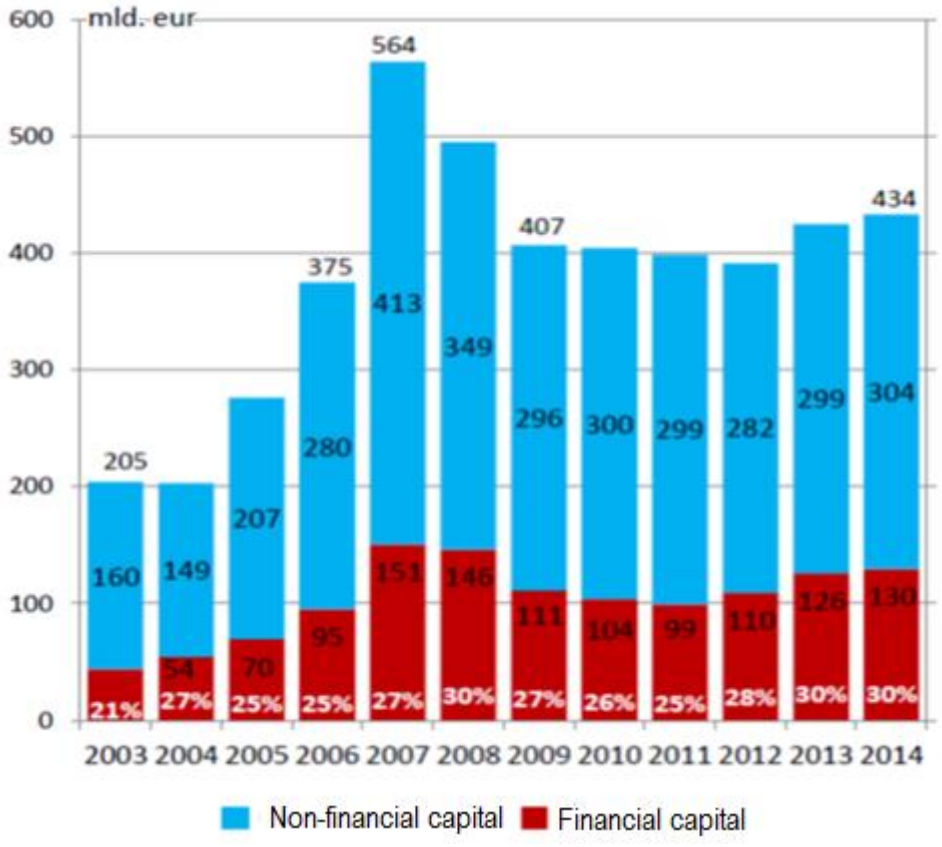
The globalization that began in the 1980s was a strong move to finance the economies and capital structure, a phenomenon reflected by:

. The value of global financial capital held by the economy (households, firms, government) grew more rapidly than the total capital (slower growth of non-financial capital);

. The dynamics of financial capital flows has both advantages and disadvantages in developing countries (advantages: individuals and businesses have had access to a higher volume of loans at lower interest rates due to increased loans and disadvantages: vehicle for faster transmission of financial crises and economic imbalances through high volatility of capital flows.

In Romania, the total capital is mainly formed from the non-financial component. Unlike the global situation characterized by a relative structural balance, in the case of Romania, the share of financial capital in total capital fluctuated between 25% and 30% after 2004 (the upper limit of 30% was reached first in 2008, however, the share dropped to 25% (2011), then the share of financial capital resumed its growth, recovering in 2013 and 2014 to 30%, however, in absolute terms, the level of financial capital in 2014 (EUR 130 billion) remained lower (-21 billion, or -13%, respectively) of the peak in the pre-crisis period (EUR 151 billion in 2007)).

Figure 1. The structural evolution of total capital



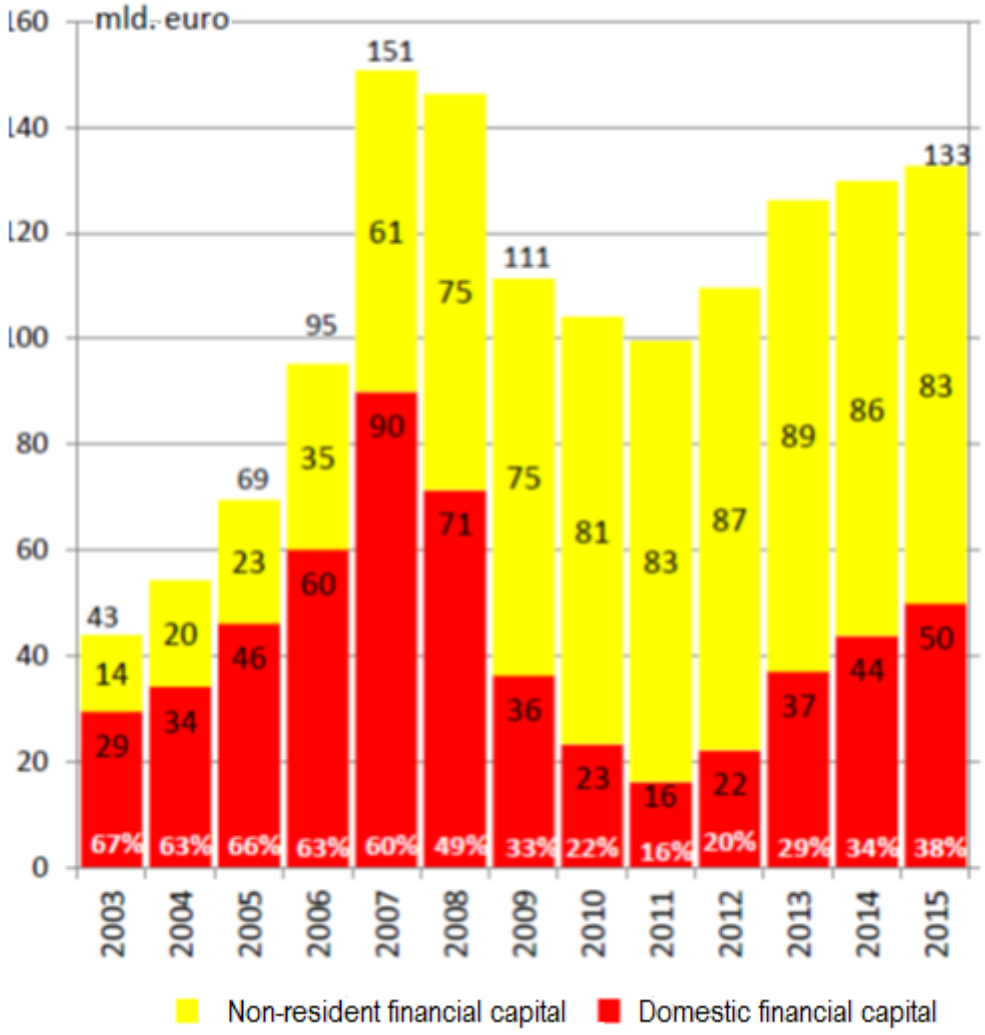
Source: National Institute of Statistics, National Bank of Romania, own processing

Starting with 2008, foreign capital has become a major part of the financial capital. In 2007 compared to 2003, the total financial capital * increased by 3.5 times, namely the foreign one by 4.4 times and the local one by 3.1 (including the public administration).

After the crisis (2009-2011), while external capital increased by 11%, the domestic one decreased by 78%, due to the sharp depreciation of financial assets and the substantial increase of residents' liabilities. In 2015 as compared to 2011, external financial capital is kept at the same level (EUR 83 billion); the domestic one tripled from 16 billion (2011) to 50 billion (2015) due to faster asset growth over liabilities.

Financial capital = financial assets - liabilities at national level of residents and non-residents.

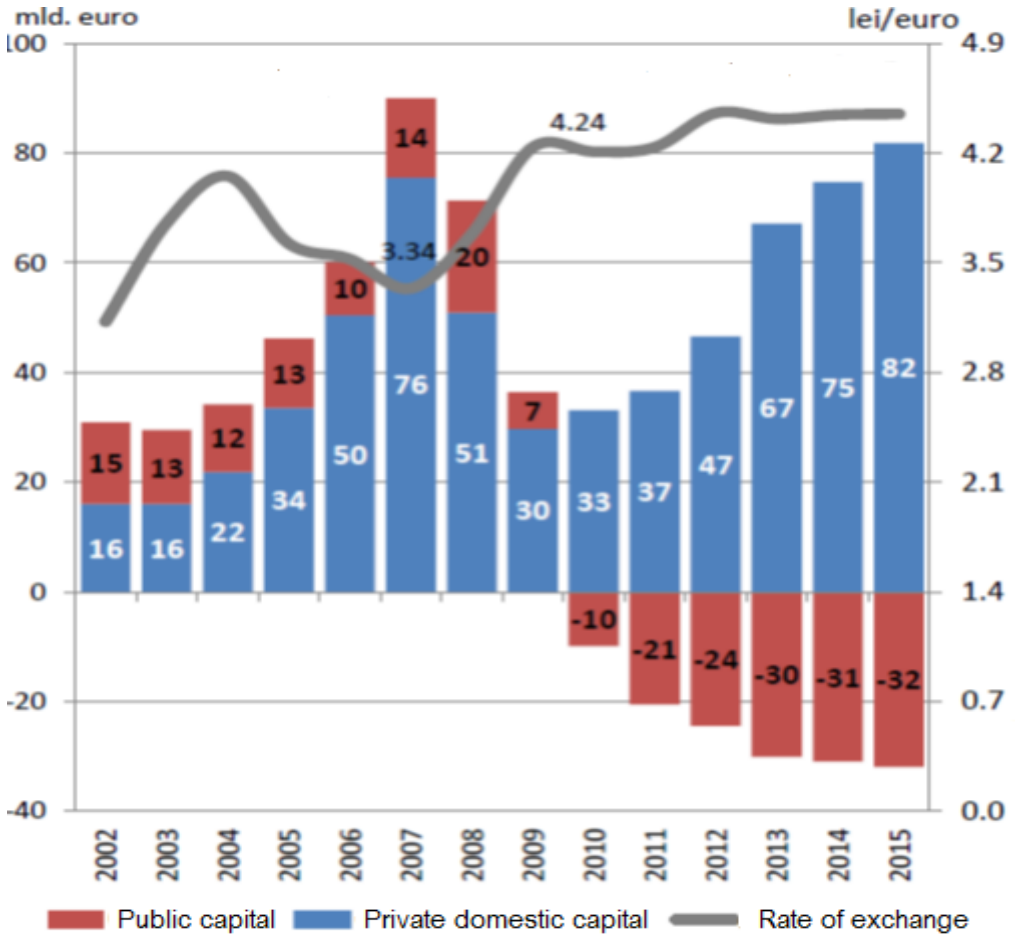
Figure 2. The structural evolution of financial capital



Source: National Institute of Statistics, National Bank of Romania, own processing

Domestic financial capital grew heavily in the boom period and declined sharply in the crisis. During the period 2003-2007, the Romanian financial capital increased continuously (4.4 times), especially on the account of private capital (growth of 4.8 times and +60 billion euros respectively). Following the financial crisis, a major contraction of domestic financial capital occurred as a result of: a sharp drop in public capital from € 20 billion in 2008 to € -32 billion in 2015 (three-fold increase in public debt) and a decline of the value of private capital caused by the sharp depreciation of the exchange rate (from 3.3 lei / euro in 2007, to 3.7 lei / euro in 2008 and 4.2 lei / euro in 2009). This unfavorable development of domestic capital was partly offset by the rise in domestic private sector saving to 82 billion euros in 2015 (2.2 times and +45 billion euros).

Figure 3. Structural evolution of domestic financial capital



Source: National Institute of Statistics, National Bank of Romania, own processing

Of the total capital of Romania, at the end of 2014, the financial capital represents only 30% (70% non-financial capital - tangible and intangible assets). Within the financial capital, foreign capital has become predominantly since 2008 and represents 62% in 2015, compared with only 38% of the domestic capital. Foreign capital inflows over the period 2004-2008 (with an annual average of 14% of GDP) allowed for a sharp rise in the investment rate well above the saving → unsustainable current account deficits (14% in 2007 and 12% in 2008) → substantial currency imbalance, which required major internal economic correction in 2009-2010 and funding of approx. EUR 17.9 billion from international financial institutions in 2009-2012 (from EUR 18.9 billion initially contracted).

Romania's accession to the EU from 2007 required the full liberalization of the capital account in September 2006. The NBR's monetary and prudential measures helped to strengthen the resilience of the banking system to shocks, additional liquidity and capital buffers, bank overruns the recent crisis without the use of public funds and the maintenance of financial stability.

The Romanian banking system is dominated by non-residents, which hold 86% of the total share capital at Q3 2016 (+46 pp compared to 2000). The banking system in Romania has been very well capitalized and with an adequate liquidity level throughout the analyzed period.

The capital is legally formed from the own accumulations of the entrepreneurs and donations, represented, in the case of Romania, by the European funds (for the capitalization of the companies it is necessary to have the own effort, under market discipline, of the shareholders for the purpose of annual capital accumulation through the obtained profit + intensive access to European funds), Credit is only a complementary source of the investor's permanent resources.

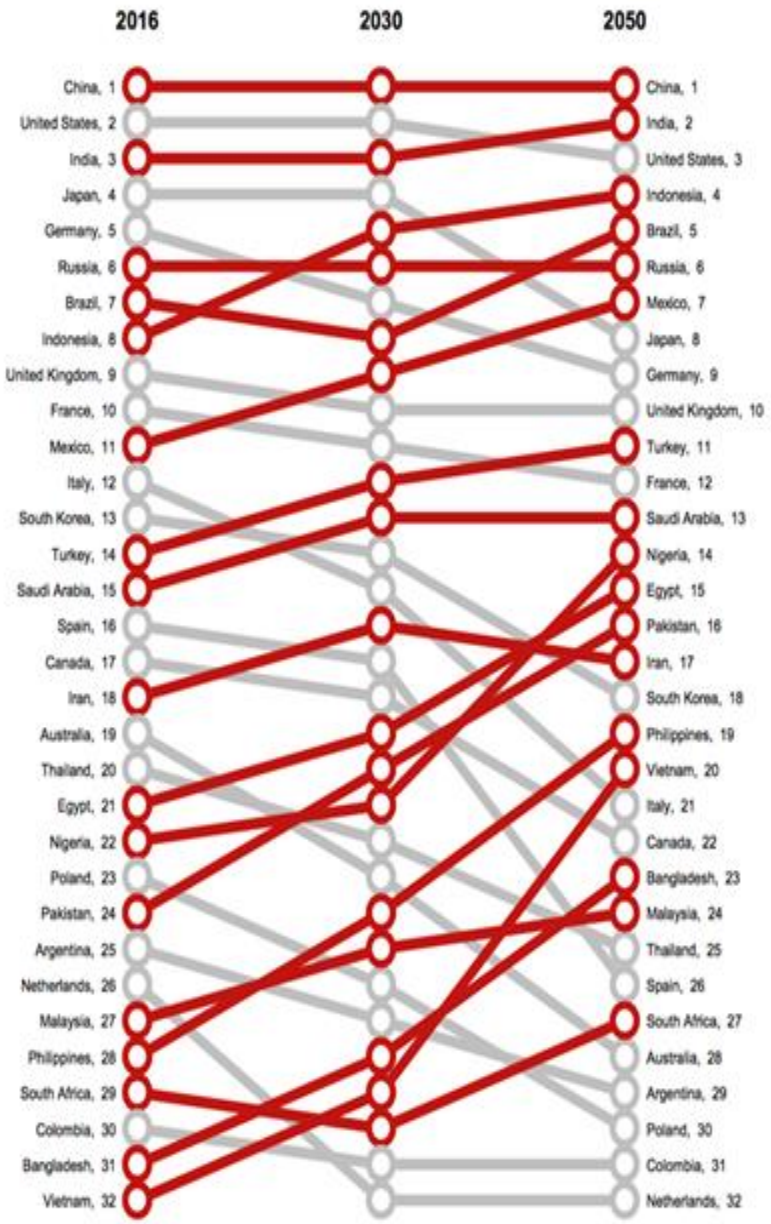
Resuming on sound lending bases requires improved financial education for the population and businesses, plus the transformation of banks into active factors of attracting customers, informing them in line with European practice, increasing the financial analysis capacity of bank officials,

especially for businesses. Democracy and the market economy bring with them not only individual freedom but also individual responsibility, which must be manifested on a stronger, more modern basis, both in the relationship between the clients and the clients and the banks.

Global financial trends are directly related to current developments in emerging markets. Contemporary and future global issues can not be resolved without the contribution of emerging economies, according to Isaac Kwaku Fokuo, Founder and Principal, Botho Emerging Markets Group, Akinie Ochieng, and Esther Ocloo Fellow, Botho Emerging Markets Group. world remains mesmerized by the growth of China and India, frontier economies are quietly taking off. The Philippines, Iran and Egypt, for example, will overtake Italy and Canada on a purchasing power parity (PPP) basis by 2050. Growth in developed economies is projected to slow to 2.2% in 2018, but countries such as Ghana and Ethiopia are reaching 8.3% and 8.2%, respectively. Over the next decade, consumer spending in growth markets will grow three times faster than consumer spending in developed nations, reaching a total of $ 6 trillion by 2020.

This year's G20 agenda includes the future of work, infrastructure for development and a sustainable food future. But these issues can not be navigated without a more representative body. It should include the economies that will shape the future.

Figure 4. Projected GDP rankings (at PPPs)



Sources: IMF for 2016 estimates, PwC projection for 2030 and 2050

"The new regional powerhouses to watch **-** although the European Union is a member of the G20, four EU countries - Germany, the UK, France and Italy - have separate G20 representation due to their individual economic sizes. While retaining the UK as a G20 member is logical because of Brexit, restricting European membership to the EU and including more high-growth economies from under-represented regions will help the G20 develop smart, broad-based policy proposals. Considering that Germany, France and Italy have some of the highest voter turnout and highest allocation of seats in the European Parliament, their interests should be adequately represented by the EU's G20 delegation. These three additional member slots should be filled by emerging regional powers from Africa, the Middle East and South and Central Asia, such as Nigeria, Iran, and Pakistan, given their strategic importance on critical issues from security to climate change to the future of work. Nigeria, Sub-Saharan Africa's largest economy, will be the third most populous country in the world by 2050. While countries such as China might tout their large population as an opportunity, Nigeria's boom poses challenges due to poor infrastructure and weak institutions, as well as terrorism and climate change. With the youngest population in the world, Africa will define the future of work, and Nigeria will be an integral part of its growth story. The country's unemployment rate has increased for the 12th consecutive year, but the growth of tech investment in Lagos presents an opportunity to turn Nigeria into Africa's digital engine." (Isaac Kwaku Fokuo, Founder and Principal, Botho Emerging Markets Group, Akinyi Ochieng, și Esther Ocloo Fellow, Botho Emerging Markets Group, WEF, 2018).

Risk in global financial networks. Modulation of financial networks

Financial space is a monetary reflection of all other areas that can be identified and defined in society, particularly in the economy.

Financial space can be considered as a set of specific financial networks with defining features that delimit them. The financial space is dual, presenting two often contradictory hypostases:

The Collective Financial Network (RFC)

Within this network are mobilized the availability of money from economic entities that have financing capacities. On this market, the offer is directly or immediately confronted with the potential demand, differentiated according to the nature of the financial market. The financial instruments that collect monetary assets are deposits (DZ) and securities (TV).

Both deposits and titles are differentiated, diversified, providing maturities, interest rates, modalities, etc. adapted to the requirements of the currency bidders, their needs to make the most of their cash. At the same time, the two instruments have specific techniques for covering risks, protecting bidders, risks from the economic environment, banking entities, and placement tools used to "invest" the collected assets.

There are two categories of participants in the financial market:

a). (FR), State (ST), and even financial institutions (IFs). In addition, there is an increase in the number of short-term unemployed. For methodological reasons, we did not consider the exterior, ie financial relations with non-country subjects.

b). (IFC), diversified, but can be delimited according to the two types of collection institutions (IBCs): banking institutions (IBs) and non-banking institutions (IN).

Banking institutions are universal and specialized, the defining characteristic being that they make deposits transformation into placement instruments (IPL), generating monetary creation. At the same time, these institutions also carry out cash flows and payments from the economy. The main types of banks are: commercial banks, popular banks, savings banks, investment banks, etc.

This bank deposit collection market (PDZ) is heavily regulated and controlled by banking institutions, as the parameters of supply and demand balance are usually set by banks.

The deposit market may be short-term deposits (PZS) or long-term deposits (PZL).

Non-bank institutions are institutions that collect availabilities using a variety of securities purchased by liquidity bidders, which they place on investors, ie those who need long-term liquidity. Disintermediation has led to the emergence of a variety of financial institutions that have adapted their instruments to the needs of bidders. Such institutions are: insurance companies, pension funds, mutual funds, investment funds, securities companies, etc.

These institutions deposit their available funds with banks, being institutional deposits, the funds being managed by specialized management companies.

The securities market, controlled by non-bank financial institutions, but operated by its own institutions and banks, is an open, more lean market, with the availability of available assets facing a potential "negotiating" demand, the prices of which are determined by -a functional transparency.

This market is divided into components that are differentiated in many respects, the main components being: the Mutual Funds Market (MIF), the Insurance Market (PAS), the Investment Fund (PFI) market, the PFP, the Mortgage Market (PIC) . these components connecting through financial institutions, with placements markets. As a rule, these institutions are the institutionalized liquidity (LIT), which is consolidated through a professional management of placements.

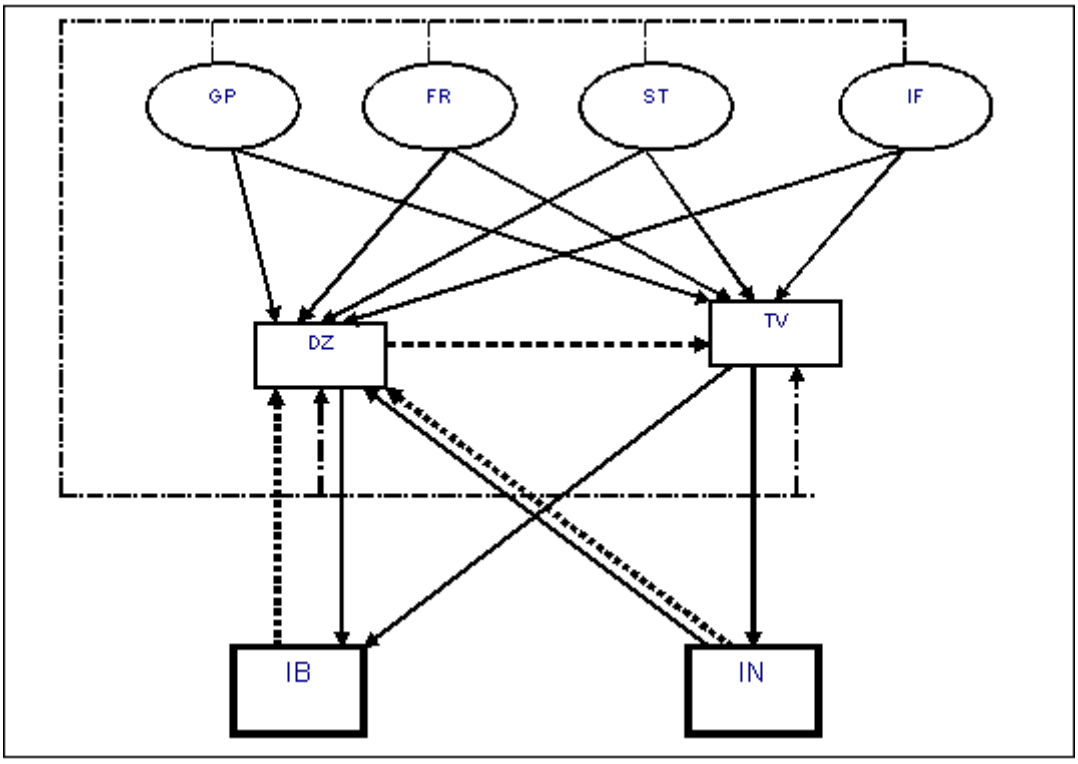
A distinct, specific market for financial collection is the State Collection Market (PCT), a market that the state buys its financial resources and liquidity through the public treasury, divided into two components: the Fiscal Collection Market (FPC) and the market of public loans (GDP).

This delimitation does not mean separation, segmentation, strict collection market, banks operating on the stock market, using financial instruments to attract deposits into deposits (deposit certificates).

The State Treasury (TPB), the state bank, which uses financial instruments to borrow from both the population and financial institutions, is also operating on this market, and often also deposits.

Simplified, the financial market is shown in the following figure.

Figure 5. Collective financial market



Source: own processing

The collective financial market thus presented suggests a bi-directional network:

- from a bidder to the financial institutions, the funds collected by the latter (DSB);

- from financial institutions to bidders, the "price" of loan for deposits and debt securities, interest (DBZ). Liquidity flows collected in the form of deposits also involve withdrawing flows from banking institutions to bidders or transforming them into securities.

The Financial Marking Market (PFP)

This market realizes the direct or mediated distribution of the collected monetary resources to the subjects in need of financing, liquidity. In this market, demand is faced with the potential offer, an offer triggered by financial institutions. The financial instruments used are of two categories: credit (CRD) and investment grade (TPL).

The *two categories of instruments* are heavily diversified and differentiated, adapted to the requirements and conditions of the liquidity demand, this diversification of the attached "prices", in particular the interests, the risks that differentiate each type of instrument, the risks that are generated by the liquidity beneficiary (investor) , the nature of the instruments, the management of the financial institutions, the business environment, etc. Diversification is due to the due dates, the reimbursement arrangements, the specificity of the financial institutions, but also the nature of the clients, investors, and liquidity destinations. Loans and placements delimit separate financial markets, differentiated, sometimes the two categories of instruments are transformed into each other.

There are two categories of participants in the financial market placement:

a). (IFP) which are usually financial collec- tive institutions (IFCs), but other institutions with only placement activities, investment financial institutions (IFIs), which use funded funds or placements in placement securities.

You can write the following relationship:

IFP = IFC + IFI = IBR + INB.

b). *Liquidity Solicitors (SLCs),* which represent the real demand for liquidity to invest, applicants being primarily firms (FR) and State (ST), but also households (GPs) and financial institutions (IFs).

Within the placement institutions, the relationship between banking institutions and non-bank financial institutions is functional, the financial placement market (PPF), segmented in the two interconnected compartments - the credit market (PCD) and the placement market (LTR) the two categories of financial instruments being transformed into one another. Moreover, the two markets each split into specific markets.

The credit market is divided into the interbank market (PRP), the major money market component (PMT), the market for credit (ECA), corresponding to the total credits to the economy, the public lending market (PCB), the consumer credit market (PCS) mortgage (PCI), etc.

A distinct market connected to the public lending market (the counterpart of the public lending market) is the public investment market (PIP) that the state places, in various forms, in the liquidity needed to make investments in the economy. This market is a component of the public placement market (PPB).

The Placement Market (PLS) is also divided into the share market (CAP), ie property titles, the bond market (POB), both of which form the securities market (PVB), the short-term securities market (PTT), etc.

The placement market is divided not only by the nature of the instruments but also by the way they are priced, initially being the primary market (PPR), where securities are sold by the liquidity claimants who become the beneficiaries of liquidity until the title is liquidated , often with the liquidation of the investor. Titles are purchased through financial institutions by liquidity bidders, which may also be financial institutions, these being institutionalized placements (PLIs), different from private placements (PLPs), the primary market being divided in this respect into the primary market of private placements (PPPs) and the primary institution of institutionalized placements (IPP).

Securities purchased on the primary market are then negotiated on the secondary market (PSC), with supply and demand on this market being generated by bidders on the stock market (PBS), an

institutionalized form of the PSC, capitalizing their liquidity differentiated, either to protect liquidity, to gain, often speculatively, to "appropriate", etc.

The placement market has generated a distributed market type of risk with a particular speculative charge, often volatilizing securities values, which become the object of transactions on this market, the market denominated in the derivatives market (PDV).

The two types of placement instruments, as we have said, often turn into each other, in particular titration credits becoming investment titles, and in this sense a deintermediation process, ie a reduction in credit flows in favor of securities flows placement.

Thus, another market within the PFP, the PTP, is identified, with the titration market (PTR) being an essential component, with both types of credits and types of titles being developed. This market is a structural market (PST) within PFP, modifying the structure of placements.

The differences between the two components of the financial market place are obvious, beyond their interconnections.

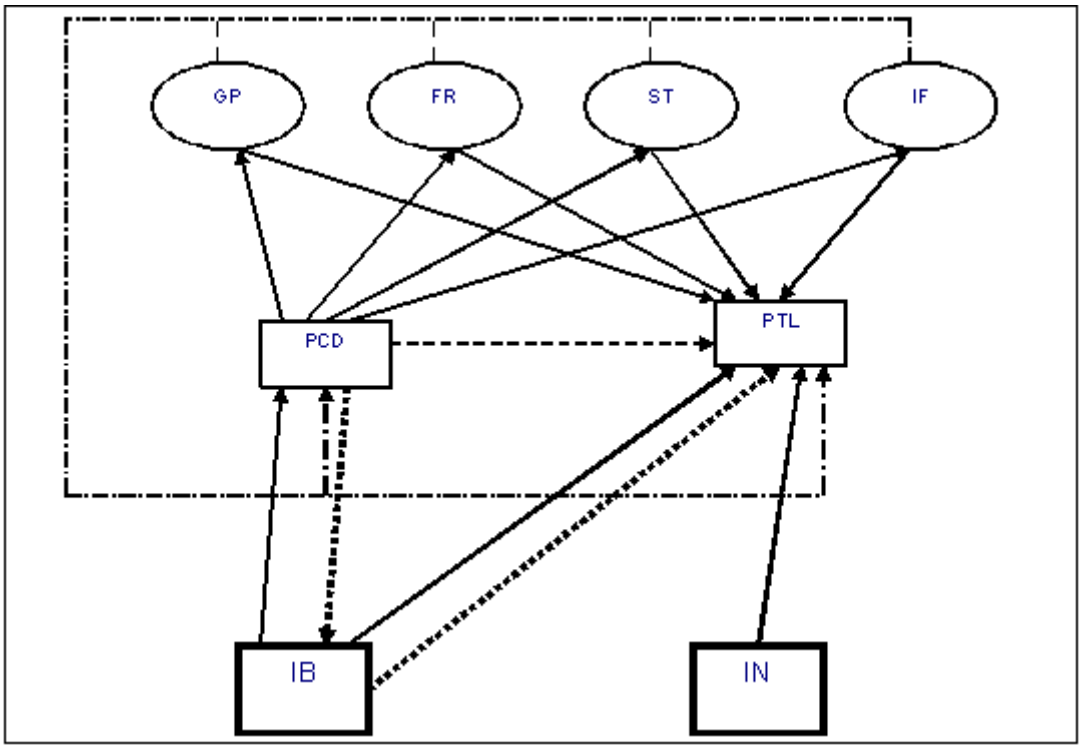
The money-creating credit market can be called an extension market (PEX), being controlled and regulated by banks, unilaterally defining credit characteristics, especially their price, interest reflecting the "balance" between liquidity demand and supply. This market is a mediation market, with banks making the transformation of deposits into loans within the banking system, thus breaking the money flow from saving (offer) to investment (demand), constituting a transitory, often dangerous and onerous transit passage. Risks are well controlled by banks, usually to their advantage and not to bidders or solicitors, banks transferring unnecessarily the risks generated by the economic environment or by their own management to the bidders.

The placement market is a much more open market than the banking market, especially through its stock market, the demand and supply of liquidity, making the price of liquidity more transparent, usually interest, but it is a more risky, speculative, volatile market. This market is the market for small securities and large-value placements.

Obviously, the differences between the two compartments of PFP and the differences between their components are much more analytical.

The global institutional set-up of the global financial market is presented in a simplified way in the following figure.

Figure 6. Placement financial market



Source: own processing

The simplified scheme highlights the existence of networks of biobivocally oriented monetary flows:

- from financial institutions to liquidity seekers, notably firms and the state, liquidity is placed through the credits granted and the placements purchased on behalf of the liquidity bidders, which the financial institution has collected;

- cash-based cash flows are made from the applicants for placements to financial institutions by which liquidity is returned according to maturities, only at the due dates and at the same time the prices of the placement instruments are paid.

Within the placement network, the central bank is occupied because all the money flows through them, both on credit and placement (in the case of which the liquidity is placed in bank deposits), as well as the prices (remuneration) of the placement instruments and the returns of liquidity.

We will make the following notations:

$(PLT)_i$ = total investments from the perspective of each applicant.

$$\sum_{i=1}^{4}(PLT)_i = PLT$$

wehre PLT = total placements, ie the total liquidity purchased by the liquidity claimants.
From the perspective of PLT placement instruments it is determined as follows:

$$PLT = \sum_{r=1}^{2}(PLT)_r ,$$

where r represents the two categories of placement instruments, credits and securities.
At the same time, total placements can also be determined as the sum of placements of the two categories of financial institutions:

$$PLT = \sum_{m=1}^{2}(PLT)_m$$

where m = the category of financial institution.
The total liquidity (LCT) obtained by each of the four liquidity claimants can be determined as follows:

$$(LCT)_i = \sum_{m=1}^{2}(PLT)_{mi} = \sum_{r=1}^{2}(PLT)_{ri} .$$

Obviously the relationship is verified:

$$\sum_{i=1}^{4}(PLT)_i = \sum_{i=1}^{4}(LCT)_i .$$

On the basis of these indicators, some significant ratios can be determined for the characterization of strains and strengths of the institutional placement investment (RIP).

$$R(PLT)_i = \frac{(PLT)_i}{PLT}$$

This rate expresses the burden of the cash flows of each applicant.

$$R(PLT)_{ir} = \frac{(PLT)_{ir}}{(PLT)_i}$$

where r = the placement instrument used.
This rate reflects the distribution of the applicant's cash on both placement instruments.

$$\sum_{i=1}^{4}\sum_{r=1}^{2}R(PLT)_{ir} = 1$$

We make the following notation:
RTP = Total Remuneration of Placement Instruments.

$$RTP = \sum_{r=1}^{2}(RTP)_n = \sum_{i=1}^{4}\sum_{r=1}^{2}(RIP)_{ir} \quad RIP = \sum_{r=1}^{2}\sum_{m=1}^{2}(RIP)_{rm} .$$

The two relationships highlight the contribution of each applicant, instrument and financial institution to the total remuneration of placements.

Next, note:
CRT = Total Payout Ratio of Placement Instruments.

$$CRT = \frac{RTP}{PLT} = \frac{RTP}{LCT} = \frac{\sum_{i=1}^{n} (RTP)_i}{\sum_{i=1}^{n} (PLT)_i}.$$

Depending on the analytical requirements of the network, rates and coefficients, and therefore indicators, can be detailed.

The composite model of the global financial market network (MRPF)

The set of financial markets, institutionally delineated, forms a network, a network composed of flows, circuits and financial cycles, which ensures the movement of the savings, to the liquidities, needed for global investments.

The network, shown in the following figure, defines three interconnected components:

PFC - Collective financial market;
PFP - the financial market placement;
PFR - Financial Regulatory Market.
The PFR comprises three fundamental markets for the financial market:
PRP - the interbank market, supervised by the Central Bank;
PBS - the stock market, supervised by the Stock Exchange Commission;
PFB - the public financial market, supervised by the Public Treasury.

The network highlights, through continuous lines, the movement of funds, money from those who save money to those who invest globally.

Conclusion

Knowledge of financial markets at national and global level, based on statistical data, can lead to our research into network-type financial market models that are appropriate to current global developments and respond to the types of network risks. At the same time, the approach in our work wanted to reveal that the credibility risk is essential, as the generic network's risk, the placement of its currency, its forms and instruments, in a space dominated by economic reasoning, centered on interest and gain, currency, the ability of the currency to perform its original functions.

Network risk in global financial markets is generated by determinant or conditional factors and, in its turn, generates direct and indirect effects through the specific risks of the financial network, the network risk being placed in a structure of interdependence and mediated influences.

The larger the size and complexity of the market, the higher the risk, both microeconomic and macroeconomic, and the possibility of economic performance is increasing. At the same time, the macroeconomic and microeconomic intercondition relations intensify, this necessity being a result of the increase of the number of economic policy instruments in the direction of evolution.

Economic stability at both macro and micro levels has the same fundamental elements, which, given the interrelationship between the two environments at the market level, is a natural and straightforward consequence to functionality.

Financial instability, as a risky event of financial stability, is also based on common elements at macro and micro level; moreover, the two types of financial instability influence each other, starting from the least disturbances of the stability state.

In the opposite direction, the financial stability of the two environments is a necessary objective for the evolution of the market. Moreover, as an important part of the organizational culture, the general and main objectives should be understood as being common to the two environments, and the specific objectives should be introduced, on a reciprocal basis, into the equations of the administrative models of the two environments.

The paper attempts to capture these aspects economically, without neglecting other visions, when appropriate. Moreover, the work will capture aspects of international practice based on the views of the great scientific personalities of our century who have approached the phenomenon of globalization of financial markets as well as personal experience in the financial field at international level.

Among the remarkable personalities of the moment who have approached and tackle the phenomenon of globalization, I mention Joseph E. Stiglitz with the works: Globalization Mechanisms (2008) "*In 2000, more than 150 Heads of State and Prime Ministers met in New York, at the Millennium Summit, committed to halving global poverty by 2015. Building on the author's experience as an official of the Clinton administration and the World Bank, the Globalization Mechanisms analyze the main obstacles to a fair globalization: the burden of national debt, the degradation the environment, the limits of liberalization, etc. The 10 chapters try to find solutions to these issues and provide a plan to restructure the global financial system. (George Soros), Globalization: Hopes and Disillusionments (2003), Globalization and its New Discontents, Aug. 5, 2016, The Globalization of Our Discontent Dec. 5, 2017 "Globalization, which should have benefited both developed countries and developing countries, is now criticized almost everywhere, as demonstrated by the political reaction in Europe and the US in recent years. The challenge is to minimize the risk that the reaction will intensify and that begins by understanding - and avoiding - mistakes of the past*."

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THE ROLE AND IMPORTANCE OF STATE AID SCHEMES IN FINANCING THE NATIONAL ECONOMY

Elena Otilia MANTA[131]

Abstrat:

The financing of the national economy is supported by multiple financing mechanisms and instruments such as financing through the issuance of government securities, financing through European funds and with the contribution of the national budget through the capital market, etc. and last but not least through state aid schemes under the direct supervision of the Competition Council and in compliance with the directives of the European Commission.

State aid schemes are national and European funding instruments for the economy, regulated by law, and whose implementation mechanism is presented in governmental programs administered at governmental decision-making level. Moreover, these sources of funding (state aid schemes) are also given in the current context of globalization of financial markets and the emergence of new integrated financial technologies at national and international level ("fintech" digital financial technologies and integrated financial services). The emergence of new financial instruments at national and global level has a direct impact on the sustainability of finances.

Key words: financing instruments, state aid, globalization

JEL Classification: F59, G15 and G28

Introduction

In the current situation, in which the effects of the economic and financial crisis have rapidly spread worldwide, the economies of the EU member states are confronted and will face serious difficulties, both within the banking system and in the real economy.

The overall impact of the financial crisis and other crises (e.g. the migration crisis, etc.) on the real economy is still strong and the real economy as a whole is affected by a substantial slowdown in growth, with a direct impact on the population, businesses and places for work. Such difficulties affect not only domestic companies but also solid societies, which are suddenly confronted with the lack of liquidity and credit. This situation has a negative impact in particular on SMEs, which have generally more difficulties in accessing funding from financial and banking institutions compared to large companies. These difficulties not only seriously affect the economic situation of many companies and their employees in the short and medium term but may also have long-term negative effects as all planned investments may be delayed or even abandoned. In this context, the importance of using public funds, both national and European, is of particular importance. As far as they are properly targeted and dimensioned, they can be an important tool for economic recovery.

Research methodology

In order to base the research methodology on the project, we used classical observation and examination instruments, research methods based on the basic principles of scientific research, respectively: "competence, objectivity, truth, methodical, demonstration, correlation, evaluation of results, utility and psychomorphism "(Ristea and Franc, 2013). We used procedures based on factual analysis, intensive documentation at the level of internal and international literature, using the databases and the scientific material existing in the endowment of libraries of specific institutes in Romania and internationally.

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The methodology of the paper has as direct instruments the collection of data and information from the literature and from the existing practice in public and private institutions, but especially scientific articles published on specialized research networks (ResearchGate, Academia.edu, etc.), articles published in various journals, relevant books in the field of reference, legislation, analyses and studies, official documents of various tax bodies, tax documents and interactive database of the National Bank of Romania, other relevant sources identified in the libraries: CCFM, Academia Romanian, INCE, IEN, BNR, National Library, INS, etc. Moreover, we analysed the documents using the comparative, analytical, descriptive method, the no participative and participatory observation, and the use of a set of informational sources, the collection of financial data in the established databases. The work is also based on annual reports, publications, consolidated statistical data provided by the National Bank of Romania, the European Central Bank (ECB), the International Settlement Bank (BRI), the European Commission, OECD, published annually, data that have been processed for can provide a general and analytical picture of the most important changes taking place in the financial markets in the European Union as a whole but also globally - considered to be representative of the understanding of the phenomena studied, and especially in Romania.

The information support of the research was provided by the monographs, books, scientific articles, materials of the scientific conferences, the balance sheets of SMEs during 2008-2017, as well as other materials, which are presented in the scientific papers and publications displayed on the official pages of the national and international research institutes, international financial institutions (research centres), etc.

Research results

The European and national funding allocations are financial measures designed to support certain categories of beneficiaries and projects. Therefore, provided that these support measures fall under Art. 87 (1) of the EC Treaty, it is absolutely necessary to comply with the Community State aid rules for granting them. Thus, it is ensured that State aid does not allow the Member State to depart from the fundamental principles underpinning the proper functioning of the single market and to affect competition and trade with other Member States to an extent contrary to the common interest.

From the beginning of 2007 until now, 68 state aid schemes and de minimise aid (24 state aid schemes and 44 de minimise schemes) have been developed. Of these, 22 schemes were designed under state aid rules exempted from notification to the European Commission. These have been endorsed by the Competition Council and sent for information to the European Commission and can now is accessed by economic agents for obtaining funding. Particular attention should be paid to European funding of projects by economic agents in Romania, as the national authorities with the attributions in the field have to check both the compliance with the state aid rules and with the ones regarding the European funds. This can increase the complexity of the implementation process, but it ensures compliance with the obligations assumed by Romania as an EU member state and avoids any further shortcomings that might arise from non-compliance with these obligations.

While pursuing in principle the achievement of common objectives (regional development and cohesion, environmental protection, promotion of research, development and innovation activities, development of human capital, etc.), state aid legislation can limit the application of European fund procedures to the eligible areas for funding, the eligible costs of the projects, the maximum level of public funding, the minimum contribution of the beneficiaries, the authorization procedure and the implementation.

Therefore, within each operational program, the managing authorities together with the Competition Council identified the state aids and took measures to comply with the relevant Community rules in order to create the legal framework for accessing European funds by the economic agents. (see Annex 2)

State aid is a form of subsidy that the Romanian state grants to strategic companies that have a major impact on the economy. According to the data presented by the Association of Romanian

Businessmen (AOAR), in the period 2007-2015, about 720 million euro of state aid was granted, the beneficiaries being 91 companies, the majority foreign. They committed to create 27379 jobs.

The average state aid for each new job created is 26,600 euros. For an average salary of about 2,000 lei per month it results that these companies cover their fixed salaries during the 5 years, as is the legal obligation to maintain the jobs. The problem identified by the AOAR representatives was that State aid was granted according to arbitrary criteria. Moreover, foreign companies benefiting from two state aids, for example, received € 28 million in 2008 and € 35 million in 2012. Also from the AOAR study we find out that among the foreign companies that benefited state aid, 6 are multinationals that have also received over the past years cumulative aid of over € 500 million. At the same time, over the period 2007-2015, 18.5% of the total volume of state aid was granted to 2 groups of multinational companies. According to AOAR, 18 companies were set up in the year of receiving state aid, and 12 companies had less than 10 employees. Of the 63 companies that received aid, 19 ended with losses even in the year in which they received the aid. At the same time, the 63 companies that received state aid turnover increased from 29.7 to 57.2 billion lei in 2014. But also in the 63 companies the rate of return fell from 4.51%, as it was before receiving state aid, at 3.84% - after receiving the subsidies.

According to the state aid data published by the Ministry of Public Finance in 2018, the list of those to implement projects funded under the state aid scheme includes six multinationals. It is worth noting that, in total, between July 11 and August 22, 2018, 36 applications for subsidies of 1.98 billion lei have been submitted to the Ministry of Finance for investments totalling ROL 5.47 billion (EUR 1.2 billion).

The Ministry of Public Finance (MFP) selected six investment projects totalling 2.28 billion lei, which are in the final stage of the analysis to benefit from state aid, based on the investment incentive scheme with a major impact economy, says a press release from the Ministry[132].

State aid is a direct form of financing the national economy and supporting the strategic objectives, namely: the restoration of some value chains, especially those that make better use of natural resources; to increase the number of companies with domestic capital qualified to state aid. It should be noted that multinationals with declared 100% exports do not pay VAT. However, we consider that State aid should be granted on the basis of grid / volume - volume relative to the production of local sub - suppliers.

In the current economic situation, granting such aid can play a significant role in reducing the impact of the economic crisis by reducing unemployment and providing a pool of well-trained workforce able to adapt more easily and contribute to the recovery of the economy. Lately, the overwhelming importance of the energy sector in the national and international economy has become increasingly apparent. In this context, we mention that the experts of the SOP Competitiveness Managing Authority, the Intermediate Body for Energy and the Competition Council worked together to develop a state aid scheme meant to support investments for the extension and modernization of the electricity and natural gas distribution networks.

The state aid scheme is currently subject to the pre-notification mechanism with the European Commission, with the formal notice being given, depending on the position of its representatives, to obtain an approval decision. Moreover, the Competition Council cooperates with Exim Bank in order to ensure compliance with the new regulations stipulated in the European Commission's Communication on the Temporary Framework for State Aid Measures to Facilitate Access to Financing in the Current Economic and Financial Period, State aid in the form of guarantees. The scheme targets economic agents currently in a precarious financial situation.

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[132] According to the communiqué mentioned in the text, out of 36 investment projects, six were selected in total amounting to 2.28 billion lei. The requested state aid amounts to 621.4 million lei. Thus, the six companies whose applications for state aid were selected are Pirelli Tyres Romania SRL, Arctic SA, Clariant Products Ro SRL, Robert Bosch SRL, Safe Med International SRL and Alu Menziken SRL. Thus, the value of the state aid requested by these companies amounted to 621.4 million lei "the score was based on the evaluation criteria provided by GD no. 807/2014: the value of the investment, the type of initial investment, the location of the realization of the investment, the profitability of the turnover (in the case of the enterprises in the activity), the value of the subscribed and paid-up capital (in the case of the start-ups).

State aid measures temporarily available by other Member States

A significant number of Member States have followed the necessary procedures with state aid schemes available on the basis of the European Commission Communication:

Table 1. The measures adopted for the member state for the state aid schemes

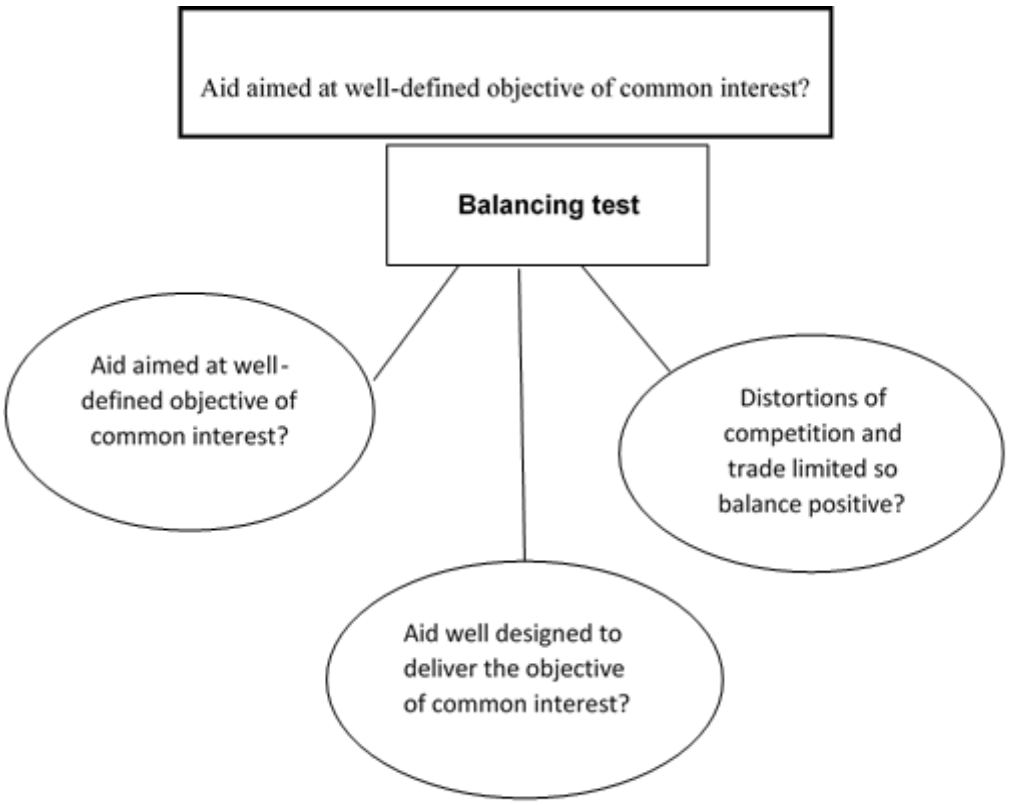
Member State	The measures adopted
FRANCE	*Grant Scheme up to the 500,000 Euros ceiling;* *Scheme for interest rate cuts;* *Scheme for reducing the interest rate for the production of organic products;* *Modifying the risk capital scheme.*
GERMANY	*Scheme for interest rate subsidy;* *Scheme for the granting of limited amounts of compatible state aid;* *Temporary adaptation of the risk capital scheme;* *Guarantee scheme;* *Scheme on interest rate cuts.*
UNGARY	*Guarantee scheme;* *Grant Scheme up to the 500,000 Euros ceiling;* *Scheme for interest rate subsidy.*
LUXEMBOURG	*Grant Scheme up to the 500,000 Euros ceiling;* *Guarantee scheme.*
PORTUGAL	*Grant Scheme up to the 500,000 Euros ceiling.*
AUSTRIA	*Grant Scheme up to the 500,000 Euros ceiling.*
LETONIA	*Grant Scheme up to the 500,000 Euros ceiling.*
UK	*Grant Scheme up to the 500,000 Euros ceiling;* *Guarantee scheme;* *Aid scheme for the production of organic products.*

Source: Av. Raluca Vasilache, FINANCIAL SUPPORT FOR CRISIS EXCLUSION - STATE AID, STRUCTURAL FUNDS. HOW TO SUPPORT THE EUROPEAN COMMISSION, THE MEMBER STATES AFFECTING THE CRISIS

Depending on the priorities of each Member State, State aid schemes should be strictly in line with these macroeconomic stability objectives of each State.

The raising of the quantitative and qualitative level of public goods and services provided to the citizen can be achieved, in the conditions of achieving sustainable economic growth, created in sectors with gross added value and higher competitiveness, as well as by increasing the efficiency of the fiscal-budgetary policy of Romania in to reduce the gap with the developed European Union.

Figure 1. Scheme for targeting State Aid


Aid aimed at well-defined objective of common interest?
Balancing test
Aid aimed at well-defined objective of common interest?
Distortions of competition and trade limited so balance positive?
Aid well designed to deliver the objective of common interest?

Sources: European Commission, DG Competition, 2018

Table 2. Structure of the general consolidated budget at U.E. and Romania (% of GDP)

	ROMANIA		U.E.	EURO ZONE
	1989	2016	2016	2016
Total budget revenue, of which:	43.5	34.9	44.9	46.5
Tax revenue, of which:	39.6	28	39.8	41.3
Direct, out of which:	20.8	14.7	26.7	28.2
Income tax	6.3	3.7	0	0
Profit tax	9	2.3	0	0
social contributions	5.5	8.1	13.2	15.3
indirect, out of which	18.8	13.3	13.1	13.1
VAT	18.8	8.1	7	6.8
Excise	0	4	3.7	3.6
Customs tax	0	0.3	0	0.3
Other indirect revenue	0	0.9	2.4	2.4
Non-fiscal income	3.9	6.9	5.1	5.2
Total budget expenditure, of which	36.1	35.7	47.3	48.5
Economic structure:	0	0	0	0
Staff cost	0	7.7	10.1	10.1
Social assistance	0	10.6	16.2	17.2
Debt service	0	1.6	2.3	2.4
Capital	0	5.1	2.9	2.7
Subsidies	0	0.5	1.3	1.5
Materials and other items	0	10.2	14.5	14.6
Functional structure	0	0	0	0
Education	2.1	3	4.9	4.8
Health	2.4	4	7.2	7.3
Infrastructure	0	1.2	0.7	0.7
Defense	1.2	0.8	1.3	1.2
Safety and public order	0.4	2.1	1.8	1.7
Social protection	3.2	11.4	19.4	20.3
Enviroment protection	0	0.8	0.8	0.8
Business (economic) actions	26.3	5.9	4.2	4.4
Culture	0.1	1	1	1.1
Public administration (gen.serv.)	0.4	4.7	6.7	7

Source: Public Finance Statistics, Eurostat, 2017

From the data presented above it follows that, compared to 1989, the volume and structure of the current budget are greatly changed, which reveals the profound changes in the Romanian society. In the structure of spending, the centralized management of the economy before 1989 is highlighted by the very large share of expenditure on economic activity (26.3% of GDP), 3.7 times more than today (5.9% of economic and 1.2% infrastructure). It is also worth noting that the level of social protection expenditures was 3.6 times lower than at present, given that the employment rate was very high (8.2 million employees), which, however, , screening and a certain amount of unemployment.

Conclusions and final remarks

The most important role of state aid schemes is to intervene in the strategic economic activity sectors of the state with economic, social and environmental impact.

Proposed measures regarding the granting of state aid as a form of financing of the Romanian economy. One of the measures that may be taken by the authorities administering and / or implementing aid schemes in force is to modify the budget and the number of beneficiaries when it is needed to meet the current funding needs identified in practice. This measure is preferable to the introduction of new State aid schemes with the same objective in order to make public funding available at a fast pace.

At the same time, taking into account the recent regulations adopted by the European Commission and in line with the support measures adopted by the other Member States, it is possible to draw up aid schemes to grant businesses EUR 500000 in grants for a period of 3 years, guarantees with low annual bonuses or subsidized loans. Moreover, the Competition Council supports the possibility to convert certain de minimis schemes, where the aid is limited to 200,000 euros, in schemes where financial assistance can reach up to 500,000 euros.

Thus, through the Competition Council and its experts, we believe that the authorities as State aid providers can cooperate closely to develop State aid schemes that will obtain the approval of the European Commission and whose implementation will lead to the solution, to the extent possible, of the current problems in the Romanian economy.

The analysis of the current situation of the financial market trends and the inventory of facts and acts, give a picture of the financial market, the emergence of new financial technologies at national and international level (fintech digital financial technologies and integrated financial services) (4).

The identification of financing needs is directly related to the direction of ensuring the financial stability of the financial market through a system for monitoring the use of financial instruments. The analysis also needs to focus on the overall financial system and is considered to be of the utmost importance to identify potential sources of instability in order to limit the risks and avoid high exit costs from potential major risk situations in the context of financial markets global (4).

National funding programs supported through the state aid instrument can actively and sustainably contribute to the strategic sectorial development of the Romanian economy, fully respecting the EU State aid directives of the Member States, which are part of the project structure. It is therefore necessary that these surveillance methods, thereby understanding the combination of monitoring and regulatory activities, are relevant to the envisaged situation in accordance with the objectives, which are targeted, reliable, easy to apply and standardized.

Financial market infrastructure plays a central role because financial stability is greatly influenced by the environment in which financial intermediaries operate. As there are cultural differences, there are also structural differences between countries. Nations have diversity between political and economic systems, legal frameworks and tax structures, which play a central role in the development of their financial systems. Those national influences can certainly interact and certainly affect practices and procedures in the regional financial markets.

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TERMS OF TRADE IN BULGARIAN POST-CRISIS INTERNATIONAL TRADE

Eduard MARINOV[133]

Abstract

The study aims to assess the impact of Bulgaria's accession to the EU and of the Global financial crisis through an analysis of the changes in the country's international trade for the period 2004-2016. Firstly it summarizes the general trends in dynamics of the country's trade flows in terms of value and volume, then it assesses the economy's dependence on international trade and the dynamics of intra-EU trade. To assess the benefits of trade of Bulgarian post-crisis international trade relations an index of terms of trade is calculated and then the results are analyzed and compared with the results for the EU as a whole and the Central and Eastern European Member States. The conclusion summarizes the main implications from the analysis and draws some recommendations regarding some possible measures in Bulgaria's international trade policy.

Keywords: post-crisis economic development, international trade, EU membership, economy openness, terms of trade

JEL classification: F10, F14, O52

Introduction

International trade as an expression of the external sector of an economy is indicative of its openness, its participation in the international division of labour, its international trade specialization and competitiveness.

In theory integration processes stimulate foreign trade, especially within the integration community, contribute to deepening the process of opening up the economy and improve the terms of trade for the participants, but at the same time create prerequisites for strengthening the negative effects of crises for the participating economies.

The study aims to analyze the changes in the dynamics of the Bulgaria international commodity trade for the period before and after the country's accession to the EU, in order to take into account its influence on the trade relations of the country. It also seeks to assess the impact of the Global financial crisis on the country's international trade flows, as "there are assumptions that the crisis may continue to smolder for decades with the outburst of relevant collapses and revitalizations as an expression of short- and medium-term economic cyclicality" (Byanova, 2018, p. 138). To achieve the goals set, the changes in the country's international trade are studied, the main research tasks being:

- to summarize the general trends in dynamics of the country's trade flows in terms of value and volume and to outline the main trends in the changes in value and volume of both exports and imports;
- to analyze the value and the share of trade with other EU Member States;
- to assess the economy's openness and its dependence on international trade;
- to calculate an index of terms of trade and to compare the country's results to those of the EU and the Central and Eastern European Member States.

The analysis covers the period 2004-2016, which was chosen, on the left, to have a basis for comparison with the development before the accession of Bulgaria to the EU, and on the right – in order to take into account the state of the country's international trade indicators before the beginning of the Global financial crisis. This period is also indicative of the development of other sectors of the economy, such as agriculture, which is characterized by a number of structural changes stemming from Bulgaria's membership in the Community (Byanov, 2017, p.153).

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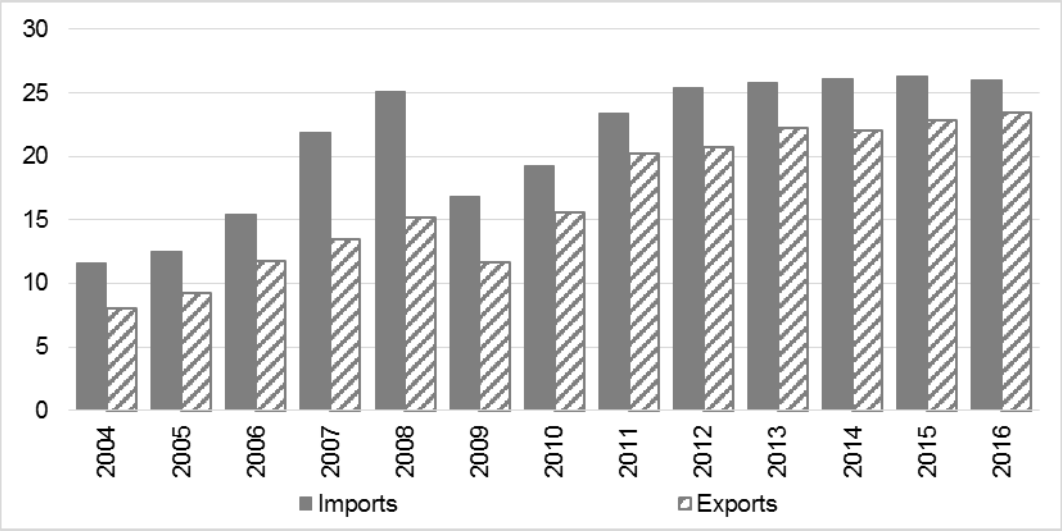
All data used in the study are own calculations by the author based on import and export data from Eurostat and the International Trade Center.

Dynamics of Bulgarian trade flows

The analysis in this section will afford to check the extent to which the hypotheses imposed in the theoretical literature that membership in a developed economic integration community: firstly, fosters the increase of the total volume of trade flows (Viner, 1950; Balassa, 1961; Panusheff, 2003); secondly, leads to the intensification of the negative effects on foreign trade in the presence of a crisis – global or in the integration community itself (Allen, 1963, Inotai, 1991, Marinov, 1999).

For the period 2004-2016 the total value of Bulgaria's foreign trade grew almost 2.5 times – from 19.6 to 49.5 Billion Euro, with much of this increase occurring even before Bulgaria's accession to the EU – in 2007 the value of commodity exchange if the country is 35.4 Billion Euro (Figure 1). There is a significant decrease due to the Global financial crisis – by nearly 12 Billion to 28.6 Billion in 2009, followed by a sharp increase to 46.2 Billion in 2012, while by the end of the period there is a gradual slight increase.

Figure 1. Value of Bulgarian international trade (2004-2016, Billion Euro)



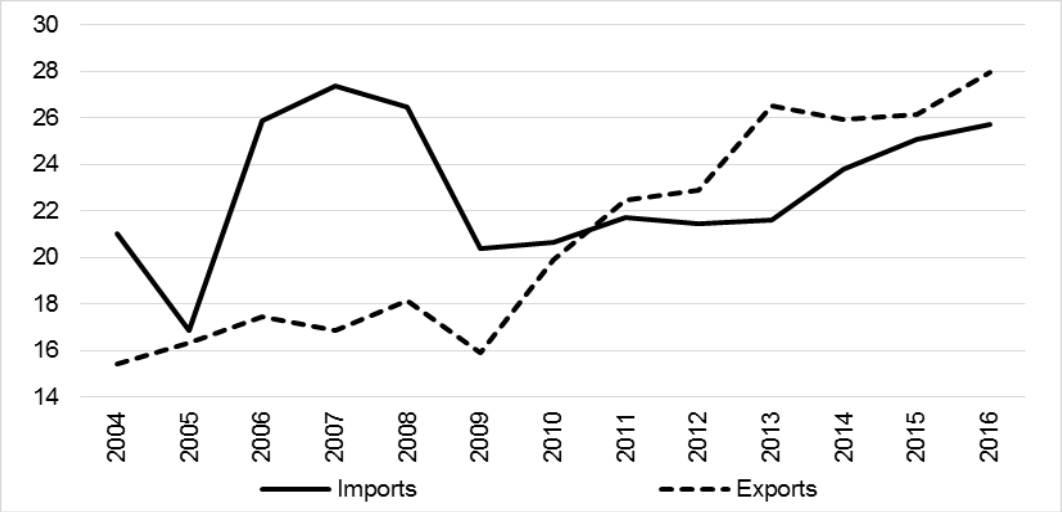
Source: Eurostat, EU trade since 1988 by SITC database.

A similar but smoother trend is the increase in the volume of traded goods (Figure 2) starting from 36 Million tons in 2004, increasing to 44 Million tons in 2008, down to 36 Million tons in 2009, followed by a gradual steady increase to 53.7 Million tons in 2016.

Similar trends are observed in imports and exports. The increase up to the peak of 2008 is characterized by a faster growth rate of imports than exports – to 25 and 15 Billion euro respectively, but the 2009 drop is more serious in imports, with a total decrease of around one third, while the decrease is lower in exports – by 23% compared to 2008.

During the whole period of Bulgaria's membership in the EU after the Global crisis, the value of exports grows faster than that of imports, with the two indicators reaching 23.5 and 26 Billion Euro in 2016. This trend is even more obvious in the volume of trade flows where exports become more than imports after 2011, while imports still (in 2016) have not reached their quantity of before the global crisis. In 2016, Bulgaria exports 28 Million tons and imports 25.7 Million. In the period of the country's membership in the EU, the first indicator has grown by over 11 Million tons while the second has decreased by just over 2 Million tons.

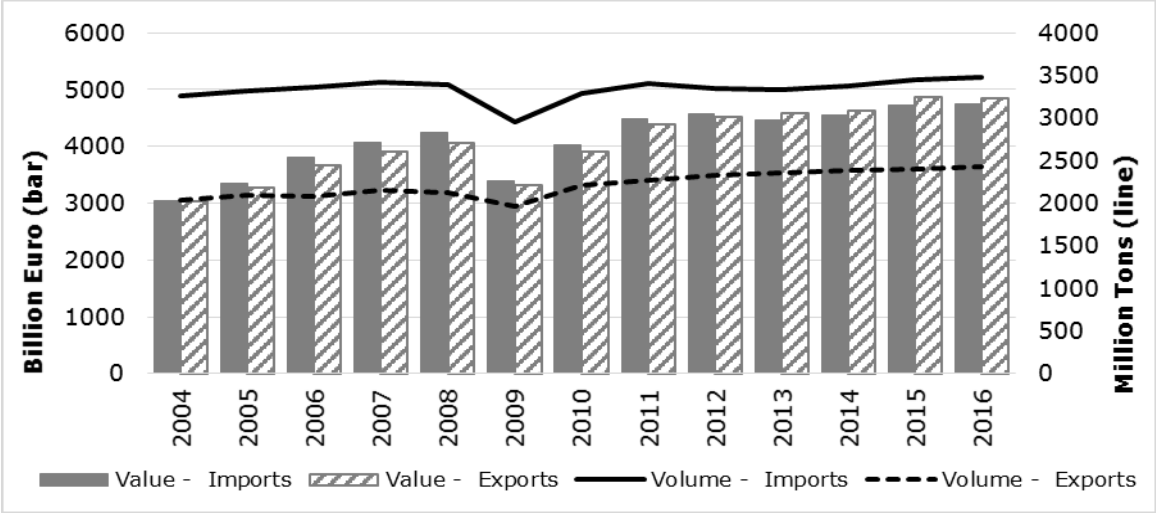
Figure 2. Volume of Bulgarian international trade (2004-2016, Million tons)



Source: Eurostat, EU trade since 1988 by SITC database.

Trends regarding the value of total commodity exchange in the EU, which are observed during the period under review, are similar to those for Bulgaria (Figure 3). However, the decrease in total trade in 2009 in the EU is more gradual than in Bulgaria (a decrease of 20% for the EU and 30% for Bulgaria compared to 2008). The overall increase in the value of trade flows for the period is much lower in the EU than in Bulgaria.

Figure 3. Dynamics of EU international trade (2004-2016)



Source: Eurostat, EU trade since 1988 by SITC database.

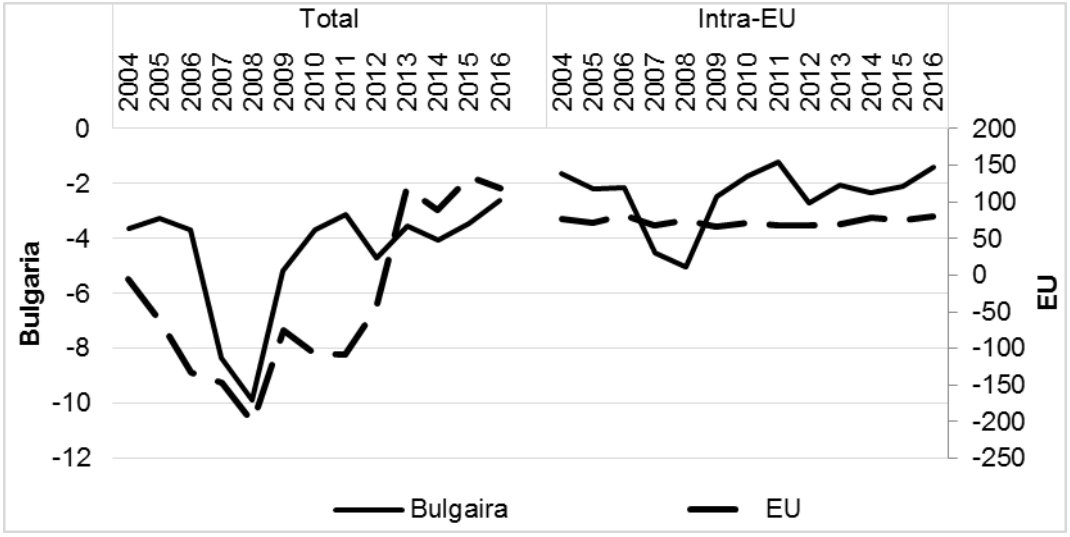
The situation in the volume of trade flows is different – in the EU it is relatively constant (both the total, as well as in terms of imports and exports) with a slight increase – from 5.3 to 5.9 Billion tons, with a decline only in 2009. In the EU, unlike in Bulgaria, the volume of imports remains higher than that of exports throughout the period 2004-2016.

The faster increase in the value of Bulgarian exports leads to a constantly decreasing trade account deficit – when Bulgaria entered the EU it is close to –8.4 Billion Euro, while in 2016 it is –2.6 Billion (Figure 4). However, the reduction of the trade deficit is more a result of a decrease in imports than of an increase in exports.

Here one could see the link with foreign direct investment: "The decrease in FDI volumes is accompanied by a reduction of imports and exports, which is a clear indicator of limited investment activity in the industrial sector. While in the pre-crisis period the current account deficit is one of the reasons for the increase of macroeconomic imbalance, in the post-crisis period the decline in

Bulgarian exports and imports is the reason for the reduction of the current account deficit." (Christova-Balkanska, 2017, p. 130).

Figure 4. Net exports (2004-2016, Billion Euro)



Source: Eurostat, EU trade since 1988 by SITC database.

The trend for a faster growth in exports, observed in the EU has led to a negative net export value going to positive, with its value reaching 119 Billion Euro in 2016. The tendency for a faster export growth, typical of the EU, leads to a negative value of net exports going to a positive one, reaching 20 billion in 2016.

The analysis of the dynamics of international trade confirms the hypothesis that membership in a developed economic integration community fosters international trade – In the case of Bulgarian EU membership trade is growing – in terms of both value and quantity both of imports and exports. One could regard as positive the fact that in Bulgaria the impact of the Global financial crisis and the sovereign debt crisis in the Eurozone is felt weaker than the in EU as a whole, which partly rejects the hypothesis that the inclusion in the integration processes creates prerequisites for strengthening the negative effects for participating economies in the emergence of crises.

Openness of the economy

A traditional indicator in analyzing foreign trade is the "openness of the economy" (Krugman, Obstfeld and Melitz, 2013; Sabotinova, 2015). It represents the share of international trade of the economy's GDP and serves as an indicator of the degree of integration of a country's economy into the global economy. The openness of the economy is a measure of the degree of international interconnection of the national economy (Appleyard and Field, 2014; Sotirova and Ivanova, 2015). By examining the degree of openness of the national economy one could draw conclusions on the participation of the national economy in the international division of labour, its integration in global economy, as well as on the dependence of the national economy on the processes in the global economy (Savov, 1995; Appleyard and Field, 2014). In order to characterize the degree of openness of the economy the analysis here uses the indicators "export quota" – the ratio of exports to GDP and "international trade quota" – the ratio of international commodity trade to GDP.

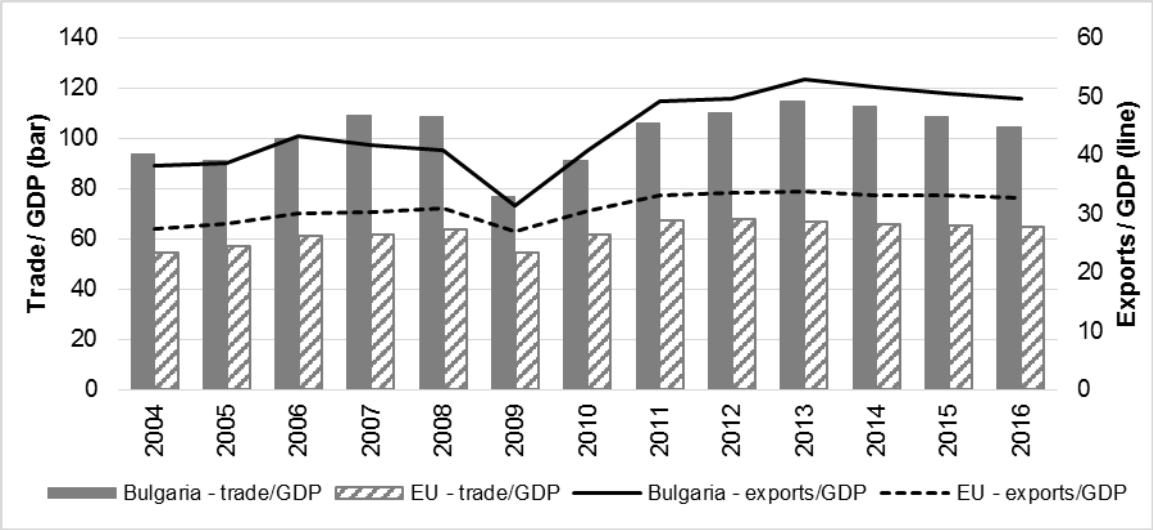
"Bulgarian economy is one of the most open economies, with the trade openness indicator rising from 56% to 69% only for the last seven years. Openness should help boost competitiveness, but Bulgarian companies find it hard to resist competition in the Single Market, which further slows convergence." (Bobeva, 2017, p. 22).

The dynamics of the indicator "international trade quota" for Bulgaria is volatile over the period under review – from 2005 to 2008 there is an increase (from 92% to 108%), then as a result of the Global crisis its value drops to 76% in 2009. From 2010 to 2013 there is another increase to 114%, after which the value of the indicator decreases by about 4 percentage points per year, reaching 104.6% in 2016 (Figure 4). Thus, for the whole period 2004-2016, the share of total trade in the

country's GDP increased by almost 11 percentage points, but due to the higher value of the indicator in 2007, the Global crisis thereafter, and especially after the decline in the last two years, for the period of Bulgaria's membership in the EU the share of trade in goods in GDP decreased by almost 4 percentage points.

The “export quota” indicator shows different dynamics – here too there is a significant drop in 2009 (with 10 percentage points, to 31%), followed by a significant increase to 53% in 2013. In the last few years there is a decrease, albeit weaker – by about 1 percentage point per year, thus in 2016 exports account for 50% of Bulgaria's GDP. The total increase for the period 2004-2016 is 12 percentage points, and within the period of Bulgaria's EU membership there is also an increase of 8 percentage points.

Figure 5. Commodity trade to GDP ratio (2004-2016, %)



Source: Eurostat, EU trade since 1988 by SITC database.

The values of both indicators for Bulgaria over the whole surveyed period are much higher than those for the EU. In “international trade quota” Bulgaria stands ahead of the EU by around 40 percentage points. The decline in the EU as a result of the Global crisis is smoother, while in recent years the value of this indicator for the EU is almost constant. On the “export quota” indicator the EU decrease is also smoother than Bulgarian (from 31% in 2008 to 27% in 2009), but the subsequent increase is much faster for Bulgaria, thus the difference with the EU increases to almost 20 percentage points in 2013 and is 17 percentage points in 2016.

From the analysis one can conclude that Bulgaria's EU membership results in an increasing openness of the economy, with the expected negative impact of the global crisis on this indicator is reflected both the in the share of exports to production as well as in the overall dependence of the economy of foreign trade.

On the other hand, however, one should bear in mind that "the value added in the country is significantly lower than the rest of the EU economies, while the value added of imports is much higher, which shows the country's high import dependence for the realization of its international economic activity but also the significant presence in global value chains" (Panusheff, 2017, p. 219).

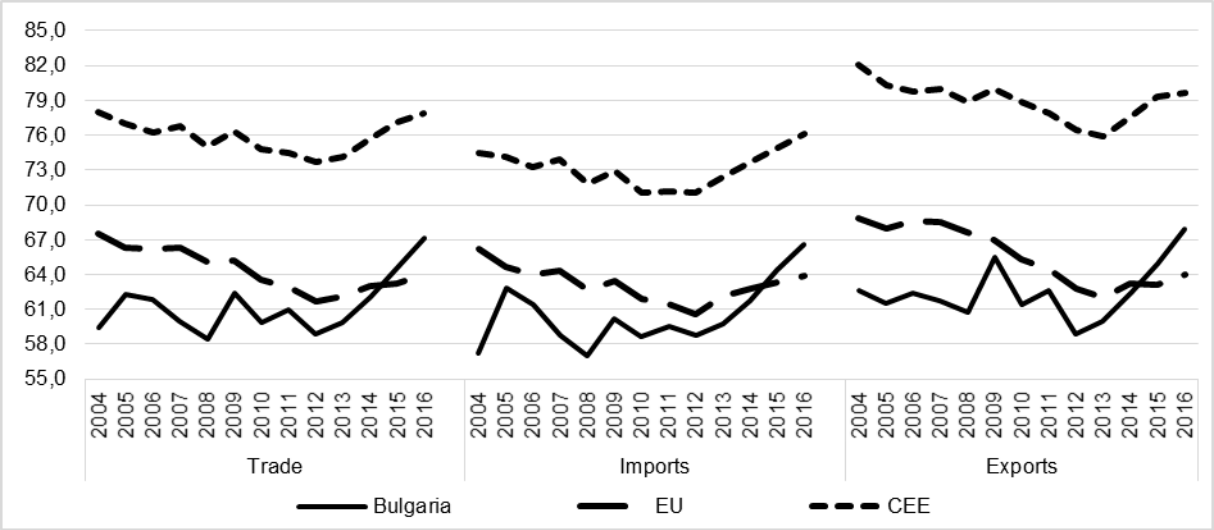
Intra-EU trade

Numerous studies state that one of the most significant positive changes that can be expected when a country joins an integration community with a functioning common market is the increase of the value and share of intra-community trade in the country's overall trade flows (Viner, 1950, Balassa, 1961; Marinov, 1999). This hypothesis will be checked for Bulgaria as well as in comparison with the other EU Member States from Central and Eastern Europe (Estonia, Lithuania, Latvia, Poland, Romania, Slovakia, Slovenia, Hungary, Croatia and Czech Republic). It will also be examined to what extent the global crisis influences the dynamics of the intra-Community trade flows of Bulgaria and the EU as a whole.

When considering the dynamics of the share of the intra-Community trade of Bulgaria for the period 2004-2016, one could identify two distinct sub-periods. From 2004 to 2011 the share of trade with EU countries remains relatively the same – 58-61% of the total trade flows of the country, with no significant difference as a result of Bulgaria's accession. The only year in which there is a sharp increase in the share of intra-EU trade (from 58% to 62%, the highest share for the whole period) is 2009 – obviously as a response to the Global financial crisis that started in 2008. After that the share stabilizes again around 60%. Over almost the entire period after 2004, the share of intra-EU exports exceeds that of imports by 2-5 percentage points, with the exception of 2005 and 2006 (when imports are 1-2 percentage points higher than exports) and in the last two years the share of both indicators is almost equal due to the sharp decline (almost 4 percentage points) in the share of Bulgaria's exports to the EU (Figure 6). Since 2012, the three indicators – the share of total trade, imports and exports in the EU are almost equal over the years, with a general trend of steady growth (by around 1 percentage point per year), reaching their highest values (67.2%, 66.5% and 67.9%, respectively) in 2016.

The overall trend in intra-Community trade is similar in the EU, but with more gradual changes, with its share being lower than in Bulgaria, reaching 64% in 2016 (Figure 5). In the catching-up economies of Central and Eastern Europe, the share is higher – 78% in 2016, and although exports have seen some decline over the period as a whole, the share of exports to the EU remains very high – nearly 80% in 2016.

Figure 6. Share of intra-EU trade (2004-2016, %)



Source: Eurostat, EU trade since 1988 by SITC database.

Regarding trade within the EU, one should note the serious reduction of the deficit in Bulgaria's net exports, which was recorded during the period under review and especially during the country's membership in the Union – from –5 billion Euro in 2007 to slightly below –1 Billion in 2016 (Figure 4).

The analysis confirms the hypothesis that the country's membership in the EU leads to an increase in the share of intra-community trade – the value and volume of trade flows are growing more rapidly in trade with the EU (total trade by 186%, exports – by 218%, and imports – by 161%). This effect of membership is further exacerbated by the response of the Bulgarian economy to the Global crisis and the Eurozone crisis.

Terms of trade

To complete the assessment of the effects of Bulgarian EU membership and the impact of the Global financial crisis on the country's international trade flows, a synthetic indicator will be constructed to assess the benefits Bulgaria derives from trade - "terms of trade".

The indicator "terms of trade" represents the ratio in which one commodity is exchanged for another on the global market (Savov, 1995; Appleyard and Field, 2014; Sabotinova, 2015). It can express the relationship between prices, between quantities or between a combination of both in

an exchange (Appleyard and Field, 2014; Sotirova and Ivanova, 2015). One of the most commonly used indicators for measuring terms of trade in international economics is the "net barter terms of trade" – the ratio between the export price index and the import price index. This indicator shows how many units of foreign goods can be imported per one unit of export income, i.e. how many import goods can be purchased per one unit of export goods. If the prices of the exported goods grow faster than those of the imported ones or are reduced less, the terms of trade improve and the benefits (profit) from trade grow. When the prices of imported goods rise faster than these of the exported, the terms of trade deteriorate and the trade advantage for the country decreases. (Krugman, Obstfeld and Melitz, 2013; Appleyard and Field, 2014).

For the purposes of this analysis, terms of trade are presented as:

$$[(QI_0 * PI_0) / (QX_0 * PX_0)] / [(QI_n * PI_n) / (QX_n * PX_n)],$$

where:

- QI_0 represents the quantitative import volume for the base year;
- PI_0 – the import value for the base year;
- QX_0 – the quantitative export volume for the base year;
- PX_0 – the export value for the base year;
- QI_n – the quantitative import volume for the relevant year;
- PI_n – the import value for the relevant year;
- QX_n – the quantitative export volume for the relevant year;
- PX_n – the value of exports for the respective year.

Three different base years have been adopted for calculating the terms of trade index – 2004, 2007 and the previous year.

There are wide variations in the terms of trade of Bulgaria, calculated on the basis of change over the previous year (Table 1) – starting from a serious advantage in exports (index value is 141) in 2005, in the next two years the terms of trade worsen (to about 70), then increase again until 2010 (144), then worsen to 87 in 2014, and in the last two years the again improve – in 2016 the index value is again positive, reaching 108. No such great fluctuations are observed in the EU and the CEE countries – the value of the index is around 100 throughout the period with the exception of a few years, when it is slightly higher (2009, 2012 and 2013), at the end of the period being neutral again (100).

Table 1. Terms of trade index (2004-2016)

year	Base year – previous			Base year – 2004			Base year – 2007		
	Bulgaria	EU	CEE	*Bulgaria*	EU	CEE	*Bulgaria*	EU	CEE
2005	*141.72*	98.71	105.87	*141.72*	98.71	105.87			
2006	*71.68*	96.50	96.62	*101.58*	95.26	102.29			
2007	*74.37*	101.67	94.70	*75.54*	96.85	96.87			
2008	*108.92*	98.65	100.21	*82.28*	95.54	97.07	*108.92*	98.65	100.21
2009	*130.38*	108.42	127.35	*107.27*	103.58	123.62	*142.01*	106.95	127.62
2010	*144.15*	100.68	99.93	*154.63*	104.28	123.54	*204.70*	107.68	127.53
2011	*114.86*	99.66	98.70	*177.61*	103.93	121.94	*235.12*	107.31	125.88
2012	*97.05*	105.40	108.97	*172.38*	109.54	132.87	*228.19*	113.10	137.17
2013	*121.62*	105.50	108.64	*209.65*	115.57	144.36	*277.54*	119.33	149.03
2014	*87.13*	99.26	100.02	*182.66*	114.71	144.39	*241.81*	118.44	149.06
2015	*98.32*	99.46	98.63	*179.60*	114.09	142.42	*237.75*	117.81	147.02
2016	*108.20*	100.14	99.51	*194.33*	114.25	141.72	*257.25*	117.97	146.30

Source: own calculations based on data from EU trade since 1988 by SITC database.

With 2004 as base year there is a serious improvement in Bulgaria's terms of trade – here one also observes a decline in 2007-2008 and 2013-2014, but the general trend is positive and at the end of the period the index value reaches 194, which is 53 points higher than the index of CEE and almost 80 points higher than the one of the EU. These differences are even more serious when the

base year is 2007 – terms of trade for Bulgaria are positive throughout the period, with the value of the index reaching 257 in 2016 – more than 110 points more than then that of CEE and almost 140 more than the index of the EU.

The assessment of terms of trade leads to the conclusion that they are improving in terms of the overall commodity trade of Bulgaria, while this indicator has a much higher value than the EU average and the catching-up CEE economies. The significant improvement of terms of trade in Bulgaria during the EU membership period means that the country manages to accumulate more capital with the help of its exports than it spends on its imports, but as already mentioned exports are highly import-dependent.

Conclusions

Within the period under review Bulgarian international trade has a dynamic development. Total trade increased by 153%, with exports increasing faster than imports (194% and 124%, respectively).

The analysis of the dynamics of different trade indicators shows that in general Bulgaria's EU accession has a positive impact on the development of the country's international trade relations.

The analysis confirms the hypotheses that the volume and value of foreign trade commodities are expanding, as well as the value and share of intra-EU trade in Bulgaria's international trade. The country's economy is becoming more open and fully involved in global trade relations, especially in terms of exports, which are increasing both in nominal terms and in comparison with the EU as a whole and with the other catching-up economies of Central and Eastern European Union Member States. Terms of trade in terms of the country's overall trade are improving, Bulgaria's growth in this indicator being much higher than both the EU average and the catching-up economies.

One could assess as positive the fact that in Bulgaria the impact of the Global financial crisis and the Eurozone crisis is felt but is weaker than in the EU as a whole and it does not affect all aspects of foreign trade relations which somewhat rejects the hypothesis that participation in integration processes creates prerequisites for strengthening the negative effects of crises for participating economies.

As a small, highly open economy participating in a highly developed integration community, Bulgaria does not have too many opportunities to produce large volumes of products and hence to achieve economies of scale in its potentially competitive products. To avoid the marginalization of the country from the perspective of international trade – trade only with the large EU market, with goods and services with low value added, which in fact benefits the big producers in the bigger Member States s, one has to carefully selected with the help of the right analytical tools a limited number of competitive national industries for manufactured goods and services with high value added which could be traded both within and outside the EU.

One of the alternatives, which could support stabilization of the good positions in international trade, especially in the context of globalizing markets and increased international competition, is increase in exports and "opening up" to new markets. Deepening and expanding international trade relations can be both a key factor in finding different perspectives for the Bulgarian economy and a catalyst for its development. In this regard, Bulgaria should look for ways to realize its output not only in the EU but also on other major markets.

In order to pursue such a policy the government should take consistent and active measures – both domestic – to encourage such industries, and commercial – to impose the products of these industries on potential foreign markets, as well as to responsibly, effectively and actively participate in the development of the trade policy of the integration community itself, thus protecting our national interests.

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TAX MEASURES TO SUPPORT THE BUSINESS ENVIRONMENT - THE PREMISE OF SUSTAINABLE GROWTH

Nicoleta MIHĂILĂ[134]

Abstract

Sustainable economic growth is influenced, among other things, by the good functioning of the business environment, namely the creation of a predictable fiscal policy to support it and the stimulation of investments in high added value sectors, the simplification of taxation and the streamlining of internal processes. The objective of the paper is therefore to assess the current state of the Romanian economy, from the fiscal perspective, the efficiency of the tax system, to identify the risks determined by the application of fiscal policy, as well as the proposal of fiscal measures in order to support the business environment.

Keywords*:* sustainable growth, business environment, tax regulations, risks

JEL Classification*:* E62, H25, H32

Introduction

Economic performance depends directly on the quality of institutions, meaning the rules according to which entrepreneurs operate. That is why constant priority must be given to improving the institutional quality of the business environment. Not only the size of taxes matters, but also the burden of bureaucracy, the rule of law, the time and costs of obtaining opinions and authorizations. Business policies require structural solutions that bring transparency, predictability and competitiveness. A friendly, investment-friendly business environment is essential for Romania's progress and sustainable development.

1. Current economic situation of Romania

In recent years, the legislative measures adopted by the authorities aimed at reducing macroeconomic imbalances, and, as a result, budgetary imbalances gradually diminished (after the economic crisis). Since 2009, Romania has adopted significant fiscal and budgetary consolidation measures that have led to the achievement of the medium-term objective in 2013, 2014 and 2015, which is in line with the provisions of the Treaty on Stability, Coordination and Governance within the Economic and Monetary Union.

The tax measures started in the period 2015-2016 (the new Tax code and wage increases and social security entitlements) and continued through the measures adopted in 2017 (raising the minimum wage, eliminating contributions for pensioners, non-taxing pensions below 2000 lei, the adoption of the law on the elimination of 102 taxes, the increase in the value of the pension point) determined in 2016 a 2,2% evolution of the structural deficit. Tax- budgetary policy measures have also been taken to ensure social protection for low-income population categories and to stimulate the business environment.

In this respect, the Tax Code, substantially amended and adopted by Law no.227 / 2015 on the Tax Code applicable from 1 January 2016, contains incentives for both the population and the investment environment and the undertaken salary increases have had an impact on consumption and investment. The year 2017 brought additional measures that overall emphasize the tax relief started in previous years in order to boost economic growth. These measures result in:

- as regards the taxation, an important change is the reduction of the standard VAT rate to 19% as of January 1, 2017, and this allowed domestic consumption to recover.

- in the course of 2017, the split payment mechanism was introduced, with the aim of reducing the evasion of VAT declared and unpaid at present.

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- reducing the income tax rate from 16% to 10%. The aim is to reduce the fiscal pressure on the income of population and, implicitly, to contribute to raising the standard of living, as well as to encourage the business environment, especially in terms of increased investment.

- reduction of the total share of mandatory social contributions, by a total of 2 percentage points, so that out of 39,25% contributions paid to a gross salary, 37,25% will be paid. Out of the total of 22,75% contributions due by the employer, 20 percentage points are transferred to the employee.

- reduction in the number of social contributions from 9 to 3, namely social security contribution , social health insurance contribution and employment insurance contribution.

- transfer of the tax burden on the compulsory social contributions payable by the employer to the employee in the case of salary and wage income.

- supporting the SME sector, by financing (by the state) programs that cumulate a series of state aid schemes: the State Aid Program for the financing of investment projects, the Start-up Nation Program, the Program for Supporting the Internationalization of Romanian Economic Operators etc.

Other business support measures concern:

- improving communication with the business environment;

- supporting all investment firms and creating new jobs, thus actively participating in reducing the economic disparities between regions and reducing unemployment;

- increase of turnover, due to the development and modernization of large enterprises and SMEs, respectively the development of suppliers of assets, raw materials, materials.

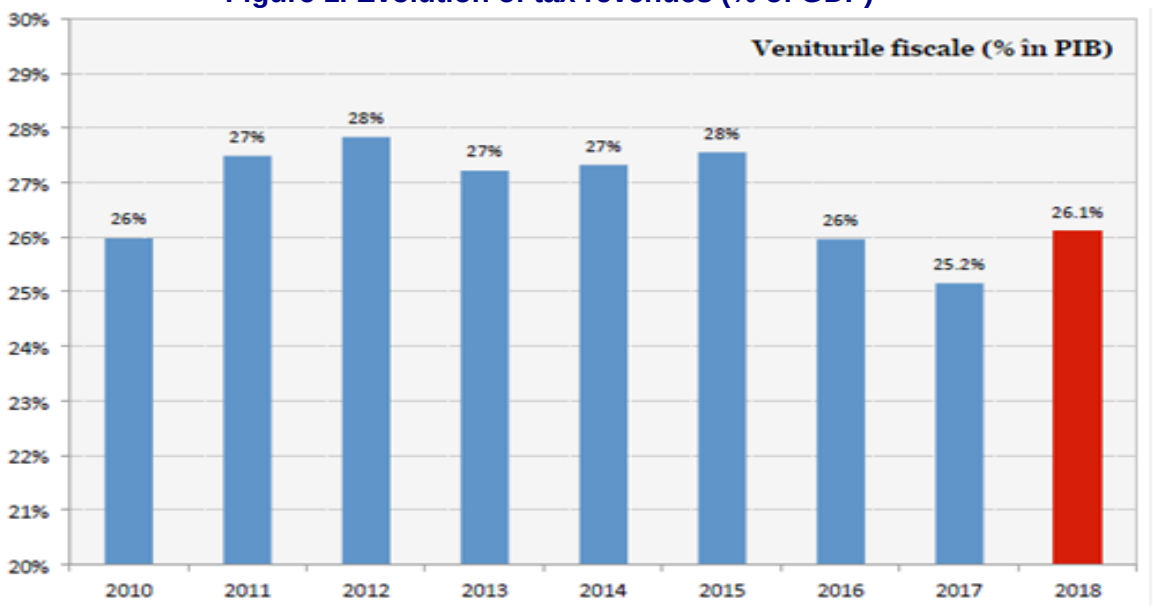
Creating a predictable tax policy to support the business environment and boost investment in high added-value sectors, simplifying taxation represent the premise of sustainable economic growth.

However, the effects of these measures do not have the desired impact, and the reality is observed in the charts below, where we present the evolution of tax revenues (% of GDP), respectively, their decrease, due to the pro-cyclical fiscal relief policies started in 2015 and continued till present (figure 1).

Also, the structure of budget revenues has become in the last years more "unfriendly" for long-term economic growth, "unfriendly" taxes of long-term economic growth being tax on profit and social security contributions, and "friendly" taxes are considered to be indirect taxes (VAT, excises), property taxes, environmental taxes (figure 2).

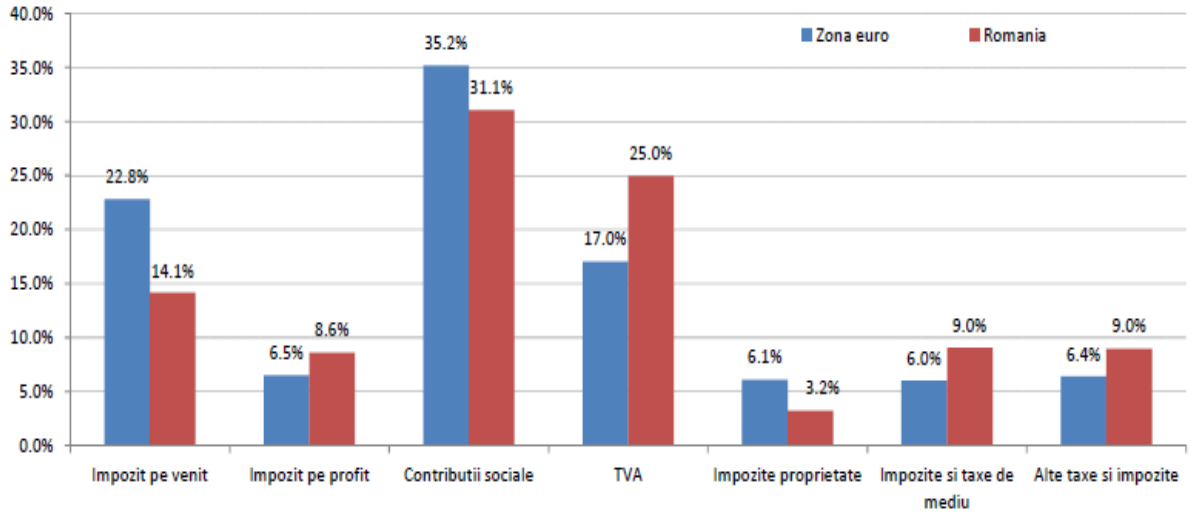
Romania relies more heavily on VAT, corporate income tax and environmental taxes than the EU average, and the share of income tax, social contributions and property taxes is lower than European averages.

Figure 1. Evolution of tax revenues (% of GDP)



Source: AMECO

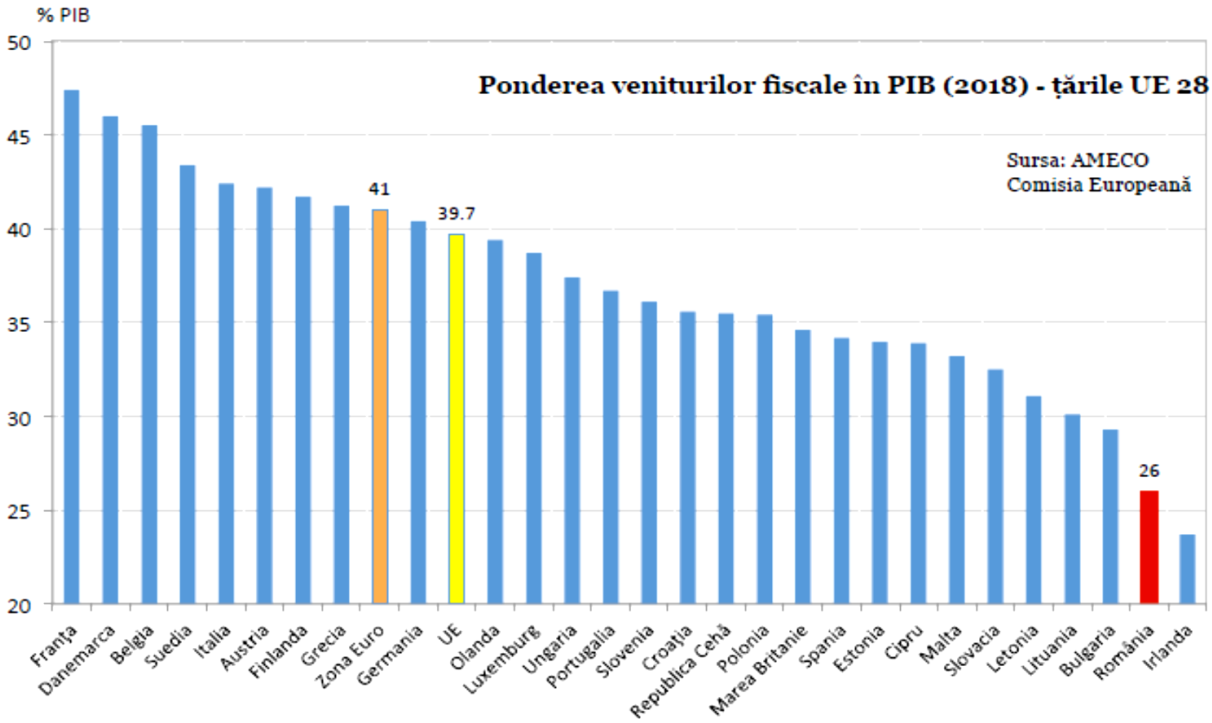
Figure 2. Structure of budgetary revenues (% of total revenues, 2016), compared to European Area



Source: EUROSTAT

Also, with regard to the collection of taxes, compared to the EU Member States, with one exception, Romania is characterized by the lowest tax revenue (Figure 3).

Figure 3. Tax revenues in EU member states(as % of GDP), 2018



Source: European Commission

The tax relaxation measures of the last two years that led to the reduction of the standard VAT rate from 24% in 2015 to 19% in 2017, simultaneously with the expansion of the reduced VAT rates contributed to the significant reduction of the gap between Romania and the EU average compared to 2010-2015. Thus, fiscal consolidation initiated in 2010 aimed at increasing indirect taxes has helped to increase their share in total tax revenues (from 43,7% in 2010 to 47,5% in 2012 and 47,3% in 2015), while at EU level this indicator ranged from 33,6% to 34,0% in the same period. It can be argued that the direction towards indirect taxation is favorable to long-term economic growth, direct taxation having a more deterrent effect in entrainment of the factors of production.

Over the last two years, in Romania is noticed the trend of reversing the increase in indirect taxes at a rapid pace (reducing the VAT rate by 5 percentage points in the period 2016-2017), but they are still predominant in the share of total revenues. At European level, there is a tendency to balance the share of direct and indirect taxes and social contributions, and many Member States

that have recorded high percentages of budget revenues in GDP also benefit from relatively high rates of direct taxes in total revenues.

2. Efficiency of tax system

The comprehensive and complex process aimed at simplifying the tax system and reducing bureaucracy has taken place gradually, the recognition of this progress being highlighted by the annual Paying Tax / Doing Business reports, realized by PricewaterhouseCoopers (PwC) and the World Bank. Thus, the 2018 Paying taxes Report (where the reference year is 2016), classifies Romania, in terms of ease of paying taxes, at 42, a better position than the previous year (position 50), the two years being comparable from the point of view of the new methodology.

Thus, the ranking shown in Table 1, in terms of ease of paying taxes in 2016, compared with 2012, presents a significant boost, since there are necessary only 14 payments (compared to 39 in 2012) for the performance of tax duties, but also the the improvement of other indicators (such as the number of hours per year to meet tax obligations), largely due to the tax authorities' efforts to facilitate electronic payments and online filling, as well as the expansion of services of payment online (payment by bank card to POSs installed at the territorial units of the State Treasury or through the ghişeul.ro platform).

Compared to the previous year, the Paying Taxes 2018 Report, for Romania, shows that the number of hours required to pay the taxes increased to 163 hours (from 161 hours), the number of annual payments of a company to pay its taxes remained constantly, respectively 14 payments, and the share of taxes in total profit remained at the same level, namely 38,4% (despite the VAT rate reduction by 4 percentage points). Thus, a medium-sized company in Romania performed 14 tax payments over a year (higher than the European average of 12 annual payments, well below the average of 24 annual payments) and consumes for the calculation, completing and filing tax returns 163 hours of work (over 161 hours of European average, well below the global average of 240 hours). From the perspective of the total tax rate (the share of taxes and social contributions in the profit of a medium-sized company), Romania had 38,4% in 2016, below the European average of 39,6%, respectively below the level of global average of 40,5%.

Overall, in 2016 compared to the previous year, Romania has made progress in improving tax payments, being positioned in the first half of the Central and Eastern European countries, ahead of Slovakia (ranked 48th in the global ranking) Poland (51), Czech Republic (53), Slovenia (58), Bulgaria (90), Hungary (93), but behind Latvia (13th place), Estonia (14) and Lithuania (18).

Table 1. Evolution of Paying Taxes Report indicators

Year	Estonia	Latvia	Slovenia	Lithuania	Bulgaria	Slovakia	Poland	Czech Republic	Hungary	ROM
Paying taxes(rank)										
2012	32	49	54	56	81	102	113	122	124	**134**
2013	28	40	42	20	89	100	87	119	88	**52**
2014	30	27	35	49	88	73	58	122	95	**55**
2015	21	15	39	27	83	56	47	53	77	**50**
2016	14	13	58	18	90	48	51	53	93	**42**
Number pf annual payments to pay taxes										
2012	7	7	11	11	13	20	18	8	12	**39**
2013	7	7	11	11	13	20	18	8	11	**14**
2014	8	7	10	11	14	10	7	8	11	**14**
2015	8	7	10	11	14	8	7	8	11	**14**
2016	8	7	10	11	14	8	7	8	11	**14**
Number of hours per year to pay taxes										
2012	81	264	286	175	454	207	286	413	277	**200**
2013	81	193	260	175	454	207	286	413	277	**159**
2014	81	193	245	171	423	188	271	405	277	**159**
2015	84	161	245	171	453	192	271	234	277	**161**
2016	50	169	245	109	453	192	290	248	277	**163**
Total tax rate(% of profit)										
2012	49.4	35.9	32.5	43.1	27.7	47.2	41.6	48.1	49.7	**42.9**
2013	49.3	35.0	32.0	42.6	27.0	48.6	38.7	48.5	48.0	**43.2**
2014	49.4	35.9	31.0	42.6	27.0	51.2	40.3	50.4	48.4	**42.0**
2015	48.7	35.9	31.0	42.7	27.0	51.6	40.4	50.0	46.5	**38.4**
2016	48.7	35.9	31.0	42.7	27.1	51.6	40.5	50.0	46.5	**38.4**

Source: PwC, 2017, Paying taxes 2018

3. Fiscal-budgetary risks determined by the effects of tax measures for 2018 and the 2019-2021 horizon

The budget estimates and economic forecasts underlying the budget construction for 2018 and the 2019-2021 horizon may deviate from baseline scenarios as a result of the possible materialization of risks that may arise from both external and internal sources, with different implications for the evolution of public finances.

Internally, risks are generally balanced from the point of view of supply or domestic demand, and positive risks are predominant. The main positive risk is represented by a higher effect of economic governance measures in the government program, both those addressed to companies (reduction of tax burden) and those aimed at the income of population (increase of the minimum wage, of the pension point, etc.).).

The negative risk is given by the possibility of increasing the NBR's monetary policy interest in case in which the European Central Bank would tighten the current monetary policy that ensures a high level of liquidity in the euro area or additional inflationary pressures would arise. The negative effects would be on the one hand in the evolution of lending and, on the other hand, in the purchasing power of the population and in the profitability of the companies.

The internal risks associated with the evolution of inflation are due to the occurrence of unfavorable weather conditions with an effect on the prices of agri-food products, in the context in which the forecast refers to normal agricultural years. At the same time, international events, which amplify recent geopolitical tensions, could lead to a depreciation of the exchange rate. These risks can lead to inflation rates above the forecasted level.

Fiscal-budgetary risks relate to the following:

-the budgetary risk resulting from payments that could be made by the Ministry of Public Finance as a guarantor for the guarantees issued by the state

- risks associated with the state-owned companies;

-risks arising from emergencies (natural disasters, accidents). Money funds for carrying out emergency management activities at central and local level are provided by the state budget and / or local budgets, as appropriate, as well as by other domestic and international sources, according to the law.

4. Measures to support the business environment

Romania needs an economic and fiscal policy strategy (although there are currently two such documents: the two-year Strategic Plan of the Ministry of Public Finance and the National Agency for Tax Administration - four years) better outlined, respectively, it should be identified and defined directions of development that will allow social welfare and economic growth.

Fiscal policy can contribute to social welfare and economic growth by increasing Romania's external competitiveness and stimulating exports by developing an attractive framework for potential investors through technological development and innovation.

Table 2. Tax policy and economic growth

Increasing external competitiveness and stimulating exports	Facilities for infrastructure investment	Tax measures to stimulate capital attraction (holding legislation)	Setting lower tax rates and taxes than the main countries competing with Romania	A wider network of bilateral tax treaties
Attractive framework for potential investors	"Tax holidays" - exemption for the first few years of starting a business	Reducing the tax rate for dividends	Reducing the time required for tax compliance, declaring and paying taxes, developing electronic tools	Stimulating research and development
Technological development and innovation	Tax incentives to stimulate investment in state-of-the-art technology and equipment	Tax incentives for individuals operating in top-level areas (IT)	Partnerships between ANAF and taxpayers.	

Source: *Badin, D, Deloitte, 2015, Modelling the economy through taxation*

Here are some examples of tax policy measures adopted by countries to boost economic growth:

● to encourage entrepreneurship and reduce unemployment:
- Poland - tax incentives for start-ups and innovations
- Germany, Hungary - tax incentives for those employing graduates, unemployed, retrained persons. ● Increased investment, dispersing resources to areas with high potential for development
- Poland - Tax credits granted according to the area where the investments are made
- Hungary - "fiscal holiday", tax credits granted by industry / types of investment / region / amount.
● Attracting foreign capital
- Reducing tax rates on corporate income tax
- Discounts / tax exemptions for repatriation of profits.
● Increased domestic production and export - USA - Additional deductions for profits from domestic production.

5. Conclusions

Sustainable development is synonymous with the development of a strong private sector, independent of political authorities, which will generate prosperity in Romanian society and will also stimulate reforms in the sphere of the public sector. The model of Romania's healthy economic development must be centered on investments and the capitalization, especially through exports, of the competitive advantages that Romania can obtain in industry, energy and agriculture. In the tax level, the sustainability of public finances is imperative, by widening the tax base, in the context of a fiscal reform package and the system of administration, control and collection of budget revenues.

In short term, increasing collection and reducing tax evasion are the imperatives of the fiscal-budgetary strategy. In the context of the fiscal-budgetary strategy, the changes must begin with a new approach to the relationship between the state and the taxpayer, namely the rethinking and redesigning of the entire tax system. The major principles of this tax reform are transparency, simplification and reduction of compliance costs - at the level of economic agents and tax administration costs - at the level of public authorities.

A stable tax system is fundamental to attracting investment in Romania. In this regard, a transparent legislative and decision-making framework is needed, whereby all new legislative measures are first analyzed in terms of economic impact, through consulting and engaging the business environment, in order to reach balanced solutions. A good consultative process from its preliminary stages would lead to strengthening fiscal strategy and legislation in order to meet both the needs of authorities and investors in Romania.

Therefore, in order to be in line with the sustainable development strategy (from a fiscal point of view), it is necessary:

- the general reduction of taxation, together with the widening of the tax base;

- simplification of the tax system and reduction of bureaucracy in relation to the declaration and payment of taxes and duties;

- the gradual increase of the voluntary compliance to the payment of the tax obligations – namely, the total tax burden “honoured” by taxpayers on time and, according to the law, over 90%;

- equal tax treatment between state and taxpayer;

- the reduction of tax evasion - according to a recent study (Schneider, 2017), the "hidden" economy in our country represents 26,3% of GDP (45 billion euro in 2016), much higher than the average of the EU, which is at 17,1% of GDP. The most damaging segment of the "hidden economy" is located in the area of tax evasion, including unregistered work, which in Romania accounts for 18% of GDP (31 billion euro). The third component of the informal economy, according to the European System of Accounts, is the self-consumption (about 8% of GDP and 14 billion euro), the high share of which is caused mainly by the large number of the rural population, compared to developed countries.

- the gradual increase of the fiscal budget revenues so that their share in GDP will reach the EU average, namely 38-40%.

It should be noted that risk is generally determined by legislative factors, with an impact on activity at both strategic and operational levels. In this respect, the following aspects are outlined:

• the instability of legal regulations, associated with inconsistency in the application of existing laws and procedures;

• the repeal of some regulations, without replacing them with other ones, created legal vacuum in some segments of the social-economic life, which led to difficulties in the application of legality, generating a decrease in the authority of the law enforcement bodies, together with affecting the purpose of the act of justice;

• the alignment of national legislation to European and international legislation facilitates significantly the increase of the efficiency of government and community interventions for the management of the various specific activities at national level;

• legislative- normative and institutional high dynamics;

• gaps and incoherence of legal provisions, materialized in the lack or ambiguity of the regulation of certain aspects, the treatment through the same or different laws of offenses, without a clear delimitation between them, the frequent modification of some normative acts, all of these creating confusion and different interpretations in law enforcement.

• lack of a code of administrative procedures (administrative code)

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WASTE MANAGEMENT IN THE CONTEXT OF CIRCULAR ECONOMY IN ROMANIA

Gabriela PICIU[135]

Abstract

The efficiency of material resources and waste management are very closely related issues. This indicates an opportunity to address both themes together, for example through the circular economy, the recovery of secondary materials or industrial symbiosis.

The paper presents the research on the waste management system as one of the strategic objectives of Romania's sustainable development. Waste can be both a resource and an environmental problem. Depending on how companies, governments and economies address issues related to the circular economy and, more specifically, the transformation of waste into wealth at the level of companies and entrepreneurs, they will make a difference. This means that well-managed waste can be considered as a resource and lead to "green" and "growth", a growth that is not resource-based but performance-driven.

Keywords: sustainable development, waste management, circular economy

JEL Classification: Q53, Q56, Q58

Introduction

The circular economy is based on a set of principles, outputs (waste) for an enterprise are considered inputs (raw materials) for another enterprise. As a result, all products on the market are designed in such a way that they can be disassembled and reused for other products. This diversity, the high degree of adaptation of products, the energy obtained from renewable sources must stem from the systemic thinking of producers who need to understand how raw materials influence one another.

Description of the Problem

Waste management in a more efficient way is the first condition for the transition of an enterprise to a circular economy where as many products and materials are recycled or reused.

Directive 2018/851 / EU introduces a new definition of "packaging waste", which includes any packaging that has been designed, designed and placed on the market to achieve several cycles in its life cycle, being reused for the same purpose which was conceived.

This directive establishes long-term goals for U.E. waste management policy and gives economic operators and Member States a clear orientation on the investments needed to achieve the objectives (Table 1).

Table 1. Long-term objectives for U.E. waste management policy

Minimum recycling target per type of specific material contained in packaging waste	Until 31.12. 2025	Until 31.12.2030
Glass	70%	75%
Plastic	50%	55%
Paper and cardboard	75%	85%
Ferrous material	70%	80%
Aluminum	50%	60%
Wood	25%	30%
Total	**65%**	**70%**

Source: Eurostat data, 2017

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Packaging recycling targets for 2030 should be examined to maintain or increase, as appropriate, taking into account the specific flows of packaging waste such as household waste, commercial and industrial packaging waste and packaging waste Composites.

The countries producing the least waste are all in Central and Eastern Europe, where the standard of living of the citizens is the lowest. While reporting the smallest amount of waste generated in the EU, Romania ranks 27th in the recycling ranking. (Table 2).

Table 2. Amount of waste generated from the U.E.

Countries	Municipal waste (Kg / capita / year	Food waste (Kg / capita / year)
Austria	564	209
Belgia	420	345
Bulgaria	404	105
Cehia	339	81
Cipru	640	327
Croația	403	91
Danemarca	777	146
Estonia	376	265
Finlanda	504	189
Franța	511	136
Germania	627	149
Grecia	498	80
Irlanda	563	216
Italia	497	179
Letonia	410	110
Lituania	444	119
Luxemburg	614	175
Malta	621	76
Polonia	307	247
Portugalia	461	132
Marea Britanie	483	236
România	261	76
Slovacia	348	111
Slovenia	366	72
Spania	443	135
Suedia	443	212
Lower Countries	520	41
Ungaria	379	175

Source: Authorized data based on Eurostat statistics, 2017

Trade in recyclable raw materials includes both imports and exports, both inside and outside the EU.

Methodology and Data Sources

As a member state of the European Union, Romania has the following objectives to be achieved by 2020: minimum 50% reuse and recycling rate of the total mass of the waste, at least 70% preparedness for re-use, recycling and other operations of material recovery of at least 70% of the mass of non-hazardous waste from construction and demolition activities, 60% recovery of the packaging waste from the total packaging placed on the national market.

Also, the collected annual amount of electronic waste will have to be 4 kg / inhabitant and bio-waste will be collected separately for composting and fermenting.

Regarding waste management, the situation is worrying, and Romania's chances of achieving the objectives of the legislative package are minimal.

According to the U.E. report, Romania has very low recycling and composting levels, ie 16%, compared to the European average of 44%, as well as high rates of waste disposal.

The recycling rate for municipal waste is only 3%, with no other EU country recycling less than 10%. Under these circumstances, reaching the 65% target is unfeasible, even when there are still 14 years by the deadline.

Along with Malta and Estonia, Romania is among the three countries of the United States. where economic growth has not been decoupled from pressure on the environment and natural resources, and the chances of this occurring are minimal.

So, the Romanian economy has a significant gap with the overwhelming majority of the European Union's economies.

An enterprise that has implemented a waste management system and which has increased flexibility in market dynamics and innovation can benefit from the following benefits:
- there is an obvious link between environmental performance and the increase in product sales for enterprises that have implemented a waste management system,

- better positioning on the market as a direct result of improving environmental performance;
- substantial savings in the use of resources, water and energy consumption, in direct correlation with the adoption of voluntary environmental management initiatives;

- a better image in relation to clients and public opinion;

- attracting new customers or finding new business opportunities;

- direct financial savings as a result of the appropriate setting of relevant environmental performance targets and indicators;

- improving compliance with environmental legislation;

- substantially improving the capacity to prevent and combat emergencies with an impact on the environment;

- Substantial reduction of the greenhouse gas emissions footprint.

Performance in business management is closely related to environmental performance, and the environmental management tool is the Green Business Index (GBI) indicator.

The GBI indicator helps identify opportunities to improve environmental management performance and reduce the risks associated with it.

It basically relies on the requirements of the international standard ISO 14031, but environmental performance indicators have been adjusted to reflect certain environmental issues that are particular or more relevant to the Romanian business environment.

Thus, even if the overall waste disposal rate is around 52%, there are still significant municipal waste and agricultural and biomass wastes that are not quantified with acceptable accuracy so that the data presented does not really reflect reality (Figure 1).

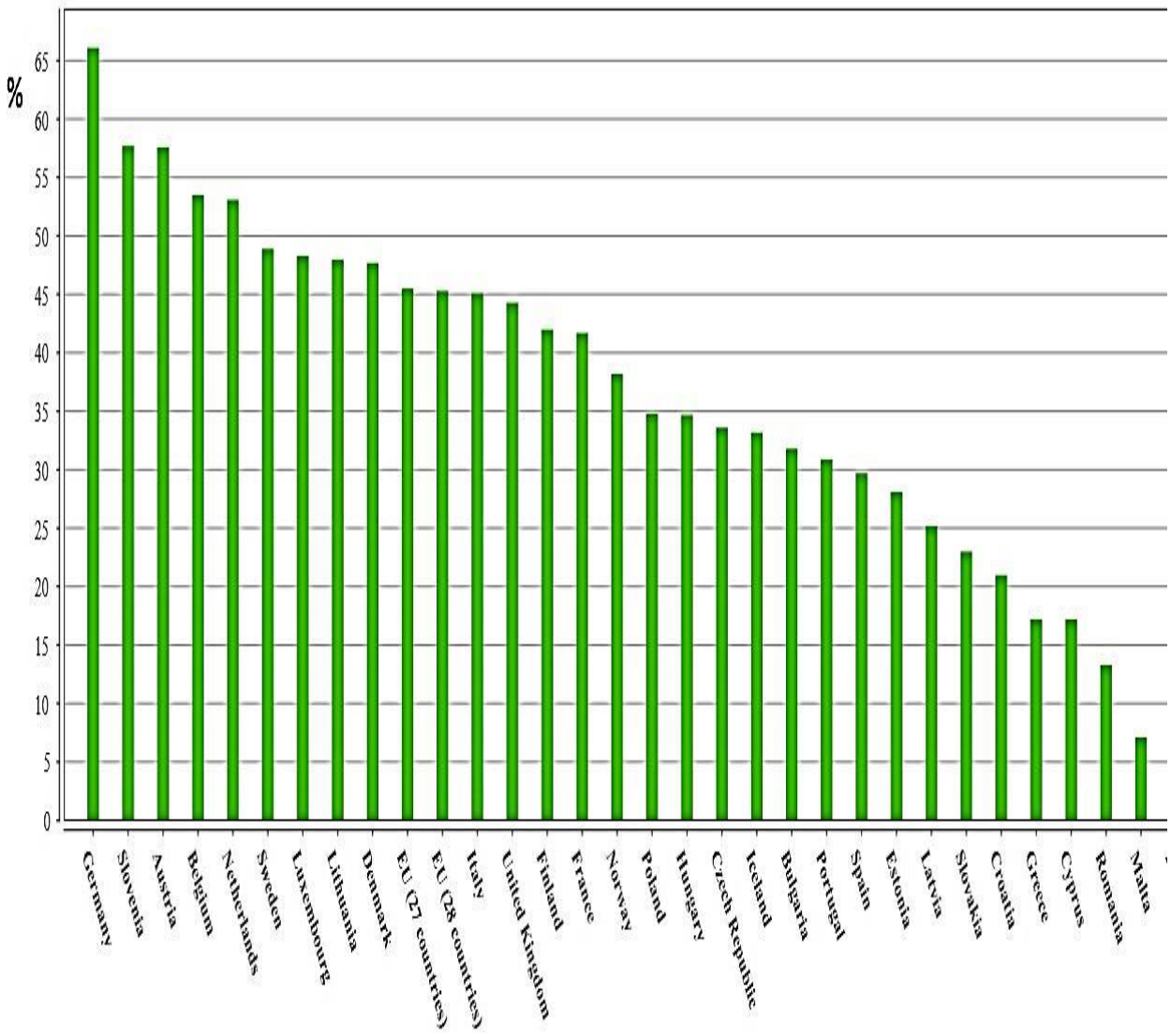
The recycling rate for municipal waste is only 3%, with no other EU country recycling less than 10%. Under these circumstances, reaching the 65% target is unfeasible by 2020.

Annually, approximately 1.3 million tons of packaging are placed on the market in Romania, leading to an obligation to recycle 750000 tons of waste.

This activity is currently funded only by packaged goods producers and importers whose interest in the collection of packaging waste has grown significantly and there is a realistic chance that this year the recycling targets imposed on producers will be achieved.

On the other hand, Romania recycles only 5% of the municipal waste annually, occupying, at a great distance from the next ranked, the last place in the European Union

Figure 1. EU Municipal Waste Recycling Rate 2017



Source: Eurostat data, 2017

Thus, with regard to the general recycling rate of municipal waste, Romania recorded the largest increase over the period 2008 - 2014, which was over 14.5 times. With all this spectacular growth, in 2014, Romania places a 13.1% recycling rate on the forefront of the European Union, outpacing only Malta and Slovakia. Also noteworthy is the average 43.9% recycling rate of municipal waste, registered at the level of the European Union. At the opposite pole of Romania, over 50% are: Germany, the Netherlands, Austria and Switzerland (non-U.E.).

Taking the last place in the EU Member States' classification on packaging waste involves the possibility of applying the infringement procedure. In Europe, especially in countries with a functioning system, recycling is supported by various economic measures and instruments.

By 2020, Romania will have to recycle 50% of the total mass of municipal waste. According to estimates, the targets for packaging waste will be achieved this year by producers, accounting for only about 13% of the 50% demand.

Throughout the waste management chain, each actor must bear the responsibility of costing: producer, citizen and local authorities. At present, those who fulfill all their obligations in this chain are only producers, those who place packaging waste on the market.

Thus, if public authorities would ensure the financing and infrastructure of the value and recycling system, the recycling rate will increase. Moreover, the authorities are responsible for implementing

economic instruments to boost the value-added business environment, one of the controversial measures being the so-called "pitfall" (postponed to take effect in 2014).

Legislative changes introduced from 2015 to the present day have regulated the system and have had a positive impact, and as a immediate effect has been the signi fi cant increase in the collection and recycling of packaging every year. Thus, the packaging recycling rate increased 1.64 times, at the level of Romania, over the same period of time, from 33.5% to 54.8%. The registered growth places Romania on the second place at the level of the European Union (which recorded a general increase of 5% from 60.5% to 65.5%), being surpassed only by Cyprus.

The 54.8% rate places Romania in the second part of the European ranking, surpassing only Liechtenstein, Malta, Croatia and Greece. It is important to mention that Romania places at the level of 2014 about 29.84% of the EU average rate of municipal waste recycling and at 83.66% of the EU average in terms of the recycling rate of the packaging. At the level of the national economy, the evolution of the sector of the NACE 38 companies had a downward trend over the analyzed period. At the level of 2014, the number of active companies is 2904, which represents only 65.41% of the number of active companies in 2008. The registered decrease caused the sector to decrease its share in the total economy (total number of active companies) from 0.67% to 0.48%.

Benefits improve waste management in Romania

In Romania, 82% of the waste is stored instead of being recycled. It is the highest percentage in the European Union.

The development of waste recycling will create over 20,000 jobs in Romania and over € 3 billion in revenues to the Romanian budget through the full implementation of current legislation on waste.

Just the very small, the smallest percentage of waste recycling in the EU, namely 5%, shows that Romania has huge potential for growth, said Kestutis Sadauskas, director of the European Commission's circular economy.

One way to improve waste management in Romania is to charge garbage dumps, and the amounts to be used to develop recycling infrastructure. Awareness of the population, increased controls by the authorities, the use of European funds can contribute to the development of the circular economy. The transformation of waste into raw materials has a major impact on environmental protection and industrial development in Romania.

In Romania, SMEs have invested in 2015 about 5% of the turnover for efficient use of resources, compared to the 50% average in the EU. and about 35% of them take measures to save energy and materials, compared to the EU average of nearly 60%.

The results of the Ecoinnovation Scoreboard in Romania have been depreciating since 2016 as eco-innovation activities have declined. Romania continues to demonstrate increased use of material, water and energy resources, but low resource productivity.

There are continuous challenges in municipal and industrial waste management, with very low recycling rates of 5% and a very high storage rate of 85%. Illegal waste disposal is frequent. Managers who are willing to make the transition to circular economy is the private sector because companies invest more in resource efficiency than in the past (especially measures to save energy - 30% of companies and measures to minimize waste - 31% of enterprises) (Flash Eurobarometer 456, 2017). In addition, many SMEs in Romania intends to offer green products and services in the next two years (19%), which is a sign that they are beginning to understand the value of these investments (Flash Eurobarometer 456, 2017).

Entrepreneurs have also identified opportunities in the waste or materials used with a number of increasingly large circular activities and developing new business models around reuse and repair. However, most production companies do not adopt life cycle thinking and actions continue to consider environmental costs as a burden in taking measures to resource efficiency.

While initiatives on the circular economy have begun to develop, more governmental support is needed to reduce them. With the adoption of the General Waste Management Plan in Romania in 2017, a major milestone was achieved, thus meeting one of the conditions for receiving EU funds.

Conclusion

The transition to the circular economy should be a priority for the Government of Romania, as it is a means of sustainable economic development. Appropriate policies and investments are needed to support the transition of economic agents to the green economy. These policies should take into account national, regional and local particularities and be implemented from bottom to top.

To this end, the Romanian government should engage in the following actions: to formulate and implement concrete action plans and policies to increase the competitiveness of economic agents so that they can achieve green growth; encourage companies to produce green goods and products, services for the green market in rapid growth; to develop and implement policies and strategies for eco-innovation; to provide important help in the transition to the green economy; to ensure that efforts remain for the transition to the green economy; to identify the most appropriate measures to promote and accelerate organic growth in Romania.

Government ministries should recognize the need to continue investing in green skills and workforce education towards sustainable development, adopt policy measures to promote environmental education; the existence of an action plan that prioritises the greening of production and consumption; to strengthen cooperation between the public and private sectors; to create tax incentives to invest in the greening efforts of economic agents. An important role will also be the implementation of simplified accounting procedures for economic agents; developing and organizing training programs for home entrepreneurs - and improving the quality of entrepreneurship; to increase opportunity-based entrepreneurship through state funding, educational programs, creating green innovation opportunities and green economic growth initiatives; the development and implementation of legislation on environmental entrepreneurship.

The Green Action Plan (GAP), proposed by the EC in 2014, aims to help economic operators transform environmental challenges into opportunities, focusing on resources, efficiency, entrepreneurship and environmental skills. Making and facilitating SMEs' access to The market also offers tools to internationalize them.

Within the EU, Romania ranks last in terms of economic indicators of innovation and competitiveness. Barriers to the ecological development of Romanian businesses include lack of investment; lack of specialized knowledge; lack of efficient management of available resources, leading to economic growth; poor access to finance; Excessive regulatory burdens.

Positive trends in the eco-innovation initiatives undertaken by the Romanian organic industry include: increasing jobs and turnover; the implementation of energy-improvement measures, efficiency in residential and public transport, and the promotion of the exploitation of renewable energy (biomass, wind, geothermal, solar and hydroelectric power) over the last decade; collaborative platforms and joint funding for eco-innovation initiatives in local companies; the promotion of green public procurement, - strategies and policy programs specifically addressing green innovations, infrastructure development and the improvement of the entrepreneurial environment; the adoption of EU environmental regulations.

Ensuring energy efficiency and renewable energy has received the greatest incentive in terms of fiscal incentives and funding available in 2013, using a generous government sponsorship to support renewable energy investments.

Romanian economic agents need to introduce environmental improvements for their operations in order to reduce costs and comply with regulatory requirements. Many of them are interested in sustainable development actions such as the use of ecological resources, clean production processes and biodegradable materials.

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IMPROVE THE PRODUCTIVITY POTENTIAL OF CITIES IN ROMANIA

Gabriela PICIU[136]

Abstract

The present article investigates the fact that as Romania's economy changes, its center of gravity moves from agriculture to industry or industry to higher added-value services, the role of urban areas in facilitating productivity growth and higher gains through exploiting agglomeration potential becoming more and more important. Cities have positive spillover effects only by absorbing economic migrants, increasing productivity and improving the results of human development. This is happening to a large extent in Romania, but much of this migration also comes from the local basin - that is, the deficient parts of the regions lagging. A solution to improve the productivity potential of Romanian cities is to encourage the development of the private sector by developing related infrastructure or by promoting healthy markets and landscapes that create conditions for population migration to cities.

Keywords: productivity, city, migration, private sector, infrastructure

JEL Classification: R11, R13, Q56

Introduction

Transforming national and regional economies from a structural (sectoral) perspective is almost always accompanied by spatial changes, a change in the scale and / or nature of urbanization.

As the economy of Romania turns, its center of gravity moves from agriculture to industry or industry into higher added-value services, the role of urban areas in facilitating productivity growth and higher gains by exploiting the agglomeration potential becoming the more and more important.

Thus, investment in cities is a source of productivity growth, the accumulation of human capital and, ultimately, opportunities for opportunity are key to achieving policy goals for the regions lagging behind.

Description of the Problem

In Europe, primary cities account for less than 16% of the EU population, they generate 23% of its GDP and 228 secondary cities generate another 45% of the EU's GDP.

In Romania, the functional urban areas in Bucharest and the county capitals generate 90% of the total revenues of the enterprises in the country. In low-income regions, most cities have contributed to economic growth, there are still large gaps in the productivity of primary and secondary cities.

Primary cities - such as Bucharest, Sofia, Budapest and Warsaw - have come to a point where they are almost on par with the primary cities of Western Europe. However, differences between primary and secondary cities in low-income countries remain much higher than in other parts of Europe. Together, these factors set parameters for short- and medium-term economic outcomes.

There are five priority areas for eliminating distortions and building up facilities to complement sectoral interventions in regions lagging behind: (1) addressing macro-fiscal shortcomings; (2) improving the regional business environment for businesses; (3) harnessing the productivity potential of cities; (4) skills training; and (5) institution building.

Unstable and weak macroeconomic conditions generate risks and uncertainties that prevent the private sector from making forward-looking and productive investments.

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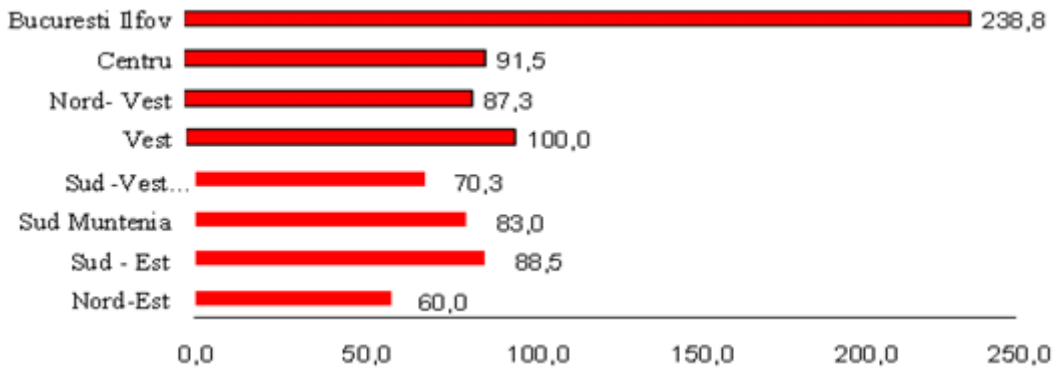
In 2016, the Bucharest-Ilfov region of Bucharest was considered a highly developed region at EU standards, 139% higher than the EU average.

The rest of the country, however, was below the EU standard with a real GDP per capita (PPS) between 27% (North East) and 48% (West). In 2016, income inequality between the eight regions of Romania has become a growing problem. Eurostat data show that the Northeast of the country, the poorest area in Romania and the fifth poorest region of the EU, represents only 36% of the EU average for development in 2016 compared to 139% for the region (South of Transylvania), 51% for Northwest (North of Transylvania), 50% for South East (including Constanta), 46% for South-Muntenia and 42% for Southwest- Oltenia.

Compared to 2007, GDP per capita in PPS increased by 12 percentage points, from 48% to 60% of the EU average, the South East by 14 percentage points, the two Transylvanian regions and Muntenia with 10PP, in Romania - Moldova and Oltenia - it lagged behind an increase of only 9pp.

There are gaps between the regions of Romania, the regional disparity index is an indicator that gives the scale of this phenomenon (Figure 1).

Figure 1. The Regional Disparity Index in Romania in 2015 (=100)



Sursa: date Eurostat 2017

The eight regions have some particularities in their economic structure, which makes certain sectors play a decisive role in their future development. Thus, the economy of the southern regions of the country (South - East, South - Muntenia, South - West Oltenia) is influenced by the evolution of the agricultural sector, which holds important weights of over 15% in these areas, growth of gross domestic product to be negatively affected. They are also regions with significant tourist potential (the Bucovina area in the North - East region, the Danube Delta and the Danube Delta in the South - East region, etc.), their economic evolutions being influenced by the level of utilization of this potential. Another particularity is represented by the areas where the extractive industry played an important role (the Jiu Valley basin in the South - West Oltenia region) and whose economy was affected by the extensive restructuring of the mining sector. The disparities between the 8 territorial regions of Romania increased rapidly in and especially between Bucharest and the rest of the country (Table 1).

Table 1. Disparities between the 8 territorial regions of Romania

Regions in Romania	GDP EUR billions	% of national GDP	GDP Per capita euro	Per capita GDP in PPS	Per capita in PPS GDP per capita in PPS; U.E. 28 = 100
Macroregion 1	**38280**	**22.5**	**7800**	**15300**	**53**
Nord-Vest	19519	11.5	7600	14900	51
Centru	18761	11.1	8000	15800	54
Macroregion 2	**35241**	**20.8**	**6200**	**12200**	**42**
Nord-Est	17081	10.1	5300	10400	36
Sud-Est	18159	10.7	7400	14500	50
Macroregion 3	**67577**	**39.8**	**12700**	**25100**	**86**
Sud-Muntenia	20583	12.1	6800	13400	46
București-Ilfov	46994	27.7	20500	40400	139
Macroregion 4	**28532**	**16.8**	**7500**	**14900**	**51**
Sud-Vest Oltenia	12451	7.3	6300	12400	42
Vest	16081	9.5	8900	17600	60
ROMANIA	**169771**	**100.0**	**8600**	**17000**	**58**

Sursa: date Eurostat, 2017

In 2016, only three of the eight regions of Romania are still included in the top 20 poorest regions of the EU.

The performance of secondary cities for regions lagging behind is important because their growth will depend to a large extent on the competitiveness of secondary cities.

The evidence from an assessment of the performances of the secondary cities in Romania attests to these tendencies of the secondary cities as engines of growth of their regions, the main growth poles in the country (outside Bucharest) are Brasov, Cluj-Napoca, Constanta, Craiova, Iasi, Ploiesti and Timisoara.

These cities not only attract migrants from the most extensive areas but also hold a share in regional economic output, which usually doubles their share in the regional population.

The findings from Romania's analysis indicate a clear conclusion about the size of the city, the largest ones having a significantly higher productivity. This is important because there are some limits on what type of cities can influence regional development on a sustainable basis, those with large metropolitan areas and significant secondary cities, or urban areas and less efficient cities as growth factors.

In the case of regions lagging behind, a possible explanation of the stage they are in may be the fact that there is no high potential city in their region.

There are significant differences between the economies of the main cities in the regions lagging behind (which tend to be secondary cities) compared to the rest of the region (which tends to be rural).

In the northeastern area of Romania, Iasi is the most dynamic city in the region: GDP per capita is significantly higher than the rest of the region (5900 euro compared to 4600 euro for the region), but it is significantly lower than the Romania as a whole (7600 euros).

With an average net monthly gain close to the national average (404 euro versus 418 euros nationwide) and well above the region level (351 euro), the composition of the city's GDP is different from that of the region as a whole (which is significantly agricultural).

Aid to secondary cities must be an important part of the policy of supporting regions lagging behind. This does not mean that all cities should be supported and that all regions lagging behind should concentrate on the resources of large cities.

It is not only the competitiveness of the city that counts for the regions that have lagged behind, but also the extent to which its improved economic and social outcomes are repercussions on them.

Methodology and Data Sources

An analysis of the results of human development in Romania shows that cities are well ahead of the rest of the country in the results of human development, and those municipalities that improve their Local Human Development Index tend to be those around urban areas.

It is also noted that while site variations decrease slightly over time, the highest convergence occurs within the group of urban locations.

There are also significant differences between cities in terms of their effects on enlargement. In all cities in Romania, the impact seems to decrease on average to 30 km, suggesting relatively limited coverage in the region.

While some cities have not expanded over time (for example, Constanta and Sibiu), the other have expanded on average by 8 kilometers. It's hard to say if the dynamics of Timisoara and Arad, with extensive suburbanization, are better or worse than the dynamics of Cluj and Iasi, which are compact cities with limited expansions in the region.

The reality is that they are shaped largely by the nature of the structural changes that occur in the respective regions - in Cluj and Iasi, to the high value services that crowd in the urban areas in Timisoara and Arad due to the transport corridors in the periurban areas.

In Romania, the functional urban areas in Bucharest and the county residences generate 90% of the total revenues of the enterprises in the country. The magnitude and nature of the city's burst effect is driven by migration and the expansion of city periphery through regional distribution chains and service delivery ties.

Cities have positive spillover effects only by absorbing economic migrants, increasing productivity and improving the results of human development. This is happening to a large extent in Romania, but much of this migration also comes from the local basin - that is, the backward parts of the regions lagging behind.

Between 2002 and 2011, approximately 1.1 million Romanians moved to the functional urban areas of Bucharest and the 40 county residences. For this population, migration meant not only an increase in living standards but also an increase in productivity.

By encouraging the development of the private sector, by developing related infrastructure or by promoting healthy markets and land, conditions are created to migrate the population to cities. Migrants also benefit and strengthen agglomeration savings. Another aspect to be considered is that cities generate dynamics through the multitude of jobs for the population, which has higher productivity and wages but also a higher cost of living.

Cities provide easier access to culture, art, entertainment and diversity, but also have a higher incidence of crime, pollution and congestion.

This problem of congestion effects is linked to the population's tendency to commute and suburbanization.

Results Obtained

The analysis of the development of secondary cities in Romania shows that much of the increase does not come as a result of population migration, many secondary cities and functional urban areas are developing rapidly, primarily due to suburbanization. Opportunities in functional urban areas attract workers despite congestion costs (high housing costs, crime or pollution disadvantages, etc.). This will lead to a continuous increase in productivity that is not sustainable.

For example, in Romania, the functional urban areas of the counties increased especially in the period 2002-2011, in most cases it was determined by a strong increase in suburban areas, while the populations of most of the cities decreased, with the exception of the cities Cluj and Timisoara.

A similar trend of suburbanization has been observed in many European cities (Cadavid et al, 2017) and suggests that suburbanization occurs in several regions lagging behind, especially in Europe's low-income areas, while functional urban areas of the counties are expanding even if

central cities are stagnating or declining due to both demographic changes and policy-induced congestion costs.

Taking into account the potential of cities in the regions lagging behind, to support high productivity growth, to transform regional economies and to generate regional effects, it is important to take into account the links between cities and the accumulation of human capital.

Thus, university cities can have a unique potential to support growth in the regions lagging behind, both because of their potential for positive economic spread and due to the quality of life characteristics that attract and retain skilled workers.

Regional policy can play an important role in unlocking the urbanization potential to generate positive effects in regions lagging behind. Urban areas already absorb much of the structural funds, partly because of their ability to raise funds.

However, EU member countries. have been obliged to allocate only 5% of the European Regional Development Fund (ERDF) to sustainable urban development activities.

Given the growing importance of urban areas in terms of the results achieved in regions lagging behind, it is important to take into account the role of the regions and the nature of the urban form that is appropriate to support regional transformation. In order to diminish and eliminate distortions leading to inefficient suburbanization, consideration should be given to strengthening the physical, social and cultural assets of cities and continuing to develop more efficient transport links between central cities, peri-urban areas and rural areas.

It will also need to increase the quality and capacity of social and economic institutions at city and regional level and link to urbanization policy. Both urbanization infrastructure and related infrastructure support the economic potential (increase productivity) and access to opportunities through the same channel - ensuring access to markets (consumers, suppliers and labor markets). Infrastructure connectivity has long been centered on cohesion policy, with tens of billions of euros spent on large-scale infrastructure (eg trans-European networks) for the integration of European markets by supporting market access and mobility in the labor market for work.

While some regions still require large-scale investments in related infrastructure, we may reach the limits of the impact of these large investments. Market access, driven in part by transport infrastructure, has a significant impact on the economic potential of a region. At the same time, the impact of investments in related infrastructure at European level on regions lagging behind would now be quite limited.

The development of rural areas is dependent on ensuring a high degree of accessibility and diversified transport links to major urban centers. Cities in cross-border areas have an increased capacity for cooperation and can lay the foundations of functional urban systems that enable efficient management of people's flows, commodities, access to opportunities for the population is an attractive element in the configuration of quality urban and rural space.

Improved accessibility through connectivity becomes a priority in regions lagging behind, especially in peripheral areas, there is a strong correlation between access to a developed road infrastructure and economic and social outcomes. High peripheral regions tend to have a high level of home access through a developed road infrastructure.

It has been found that not both low-income and low-growth regions have low levels of access to developed road infrastructure, but also have large differences between access within lagging regions and access to other regions of the same country. In Romania, a first step towards mitigating the consistent development gaps between regions is without a doubt their interconnection through high-quality transport infrastructure.

The region with the largest public road network is Bucharest-Ilfov (48.9 km / 100 km²), followed by the South-West region (36 km per 100 km²) and the South-Muntenia region (36.5 km / 100 km²). In contrast, with the worst public road infrastructure is the South East region (30 km per 100 km²).

The regions of North-East Romania are at a great distance (about 2000 km) from the center of Europe and 375 km from Bucharest. The biggest problem in the region is the underdeveloped road infrastructure, there is no motorway between the North-East region and Bucharest, neither between Transylvania and neighboring countries.

The main road connecting Bucharest to the capitals of the North-East County, the E85 (European road) and the national road DN2 are in a very poor condition and are very crowded. This makes transport of people and goods a very great effort, and going from Bucharest to Botosani, the northernmost residence, could take even one day.

However, major additional investments in improving the connectivity of regions should be carefully prioritized and selected to provide good value for money. In the case of the North-East region of Romania, the critical link infrastructure linking the Bucharest region and the European markets is still a priority.

Romania does not have a functional framework for the development, prioritization and execution of public investment projects and the capacity for long-term strategic planning and assuming medium-term commitments on investment projects is insufficient. Also, funding opportunities through structural and cohesion funds are insufficiently exploited.

According to the IMF, improving the quality of public investment over the period 2016-2020 could add 0.5pp to the potential GDP growth rate at the end of the interval. Thus, the existence of a policy mix that supports the development of counties with a relatively low level of development is necessary. The vast majority of these counties occupy a central place in regional politics.

Conclusion

Regarding the regions, namely counties with limited potential for endogenous development, the formation of a critical mass capable of activating it depends decisively on supporting the process of technological dissemination and, on this basis, R & D and innovation.

In conclusion, the regional development implies the development of strategies, smart specialization and innovation at the level of each locality, promoting the research-development-innovation activities depending on the supply of production factors, human capital and the possibilities of cooperation with university and research environments, as well as business, specific to each region or county.

This intelligent specialization must satisfy, first of all, the requirements of the economic and social prosperity and competitiveness of the locality, which does not exclude the spillover effect at national and community level. The smart specialization of regional endogenous growth targets any economic and social domain in which micro and macro-product and product innovations can be applied, in the context of the local, regional and national policy mix that manages to internalize positive externalities, a system payment of subsidies, state aid or other financial means of budgetary assistance. Research on the endogenous development of Romanian regions and counties requires further study of the dialectics of internal and external factors of economic growth, endogenization of external factors, knowledge of the territorial propagation effects of positive and negative externalities, as well as the market mechanisms of their internalisation complementary to public-private partnership at local, county, regional, national, EU and extra EU-28 levels.

Romania's R & D investments are consistently much lower than those achieved at European level. In Romania, approx. 60% of the research expenditure is spent by the state, and approx. 70% of total funding supports activities that do not go beyond the technological development phase, in contrast to approx. 1% for RDI products and up to approx. 2% for product development, ie the essence of innovation and business initiative.

If the phenomenon of more marked regional disparities in the Member States continues, it is certain that the generated effects will also have a negative impact on the country-wide convergence process.

It is also noted that there are differences between the counties in Romania, with Bucharest on the top position, followed by the districts of Ilfov, Timis and Cluj, Iasi, Constanta. There is a pronounced upward trend of the spatial disparities in the Romanian counties in the long run, with some deviations in the subperiods, depending on the evolution of the national economy as a whole. The persistence of severe spatial inequalities in the Romanian economy requires adequate territorial policies capable of supporting the faster development of the lagging counties by capitalizing local resources for economic growth.

In Romania we can see a recovery process. One possible explanation is the progressive reforming process and the stabilization of GDP growth rates.

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OPERATION OF THE MICROFINANCE SECTOR FROM THE REPUBLIC OF MOLDOVA IN TERMS OF STRATEGIC MANAGEMENT

Viorica POPA[137]

Abstract

The microfinance sector plays an important role in the socio-economic development of a country, and occupies a special place within the financial system. However, the microfinance instrument can even be a strategic engine for growth and a key source of job creation for any country in the world. And in other European Union (EU) countries and in the Republic of Moldova, microfinance can be seen as a mechanism for developing a new era of non-banking financial institutions. The specialized literature reflects a multitude of definitions of the concept of microfinance. However, the roots of the notion of microfinance is recommended to be put into the historical context in order to understand as clearly as possible the meaning and origin. Thus, the purpose of the research is to analyse historically the microfinance models from Bessarabia till the nowadays well-structured microfinance organizations under the strategic management aspect. To achieve the objectives proposed in the study, the author has used the following research methods and tools: the method of synthesis, comparison and analogy.

Keywords: microfinance, strategy, management, mechanisms, method, instrument, etc.

JEL classification: G21,G23.

Introduction

The Microfinance tool is one of the sources of funding that has enjoyed a strong promotion throughout the world in the last decade, especially in poorer countries in financial resources. Against this background, analysis of the evolution of the microfinance sector demonstrates that microfinance allows poor households to move from day to day surviving to future planning, investing in better nutrition and better living conditions. The emergence of these institutions is caused by the need for microfinance activity in the rural sector, as well as the financial support of the small and medium business, namely the entrepreneurial activity in the spheres of production, trade and provision of services.

Strategic microfinance models in Bessarabia

Strategic microfinance models in Bessarabia originate from ancient times in various forms and had encompassed many segments of the economy, according to the needs, conditions and necessities of the population. The first microfinance models began to form starting with the second half of the nineteenth century, with a wide range of forms of financial co-operation such as: credit and retention comrades, loan comrades, small credit comrades and other institutions with diverse names, which had the basic function of keeping money savings and granting loans to its members. These Bessarabian microfinance models had a cooperative shape and were inspired by Rochdale's first cooperative association model, founded in 1844 in England. The author explains in Table 1, the structure of microfinance models in the first half of the nineteenth century, in the Kingdom of Romania, Bessarabia, Bucovina and Transylvania.

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Table 1. The structure of microfinance models in the first half of the 19th century

Area	Year of appearance	Forms of microfinance	Structure, principles of operation
Kingdom of Romania	The second half of the 19th century	*Popular banks* (from urban areas, have turned into commercial credit companies over the years)	1907- 90.8% of the number of cooperatives of all categories was owned by the Kingdom. 1912- 11 federal, 1917-35 federal. The federal task was to provide their members with financial means for lending the farmers.
Bessarabia	1860	*Credit and retention comrades, loan companions, small credit comrades.*	1914-349 of the credit comrades, 313771 members, financial means were oriented towards the financing of purely commercial operations, at the expense of lending to peasants.
Transylvania	1868	*Mutual aid societies, holding and lending companies, deposits and loans, saving houses or units.*	1915-108 Romanian cooperatives with 11112 members with 1323470 crown capital with 852570 crowns reserve, with 6333,000 crowns for strengthening and with 1607920 crowns loans distributed to peasants.
Bucovina	1875	*Credit and agricultural accompaniment for purchase and sale.*	1914-175 companionships. Much of them were governed by the principles of the Herman Schulze-Delitsch co-operation, others following the rules established by Frederick Wilhelm Raiffeisen.

Source: developed by the author based on material [2].

The first credit and saving association is retained in history since 1840, created in Causeni commune of Tighina county. Respectively, in the same year – 1840, there were 398 credit and economy comrades, 5 credit houses and the Union of Credit and Savings of Bessarabian Cooperatives. At present, the State Archive of Moldova keeps numerous and important documents certifying the presence at that time of a highly developed network of primary institutions of mutual financial aid. There are materials confirming the organization of annual national level congresses with representatives of these institutions, as well as materials proving the presence of a strong regulatory and supervisory system by the state.

Table 2. Evolution of microfinance models in Bessarabia in the 19-20th centuries

Year of appearance	Forms of microfinance	Principles of operation
1840	The first credit and saving comrade	398 credit and savings comrades, 5 credit houses and the Union of Credit and Savings of Bessarabian Cooperatives were functioning
1882	peasant associations	organized a congress in Chisinau; the villagers accused the leaders of the cooperatives of lack of capacity and, as a result of their complaints, the comrades were wound up or forced to merge
1895	a new law was developed to encourage the cooperative system	the imperial government has drafted a new law to encourage the cooperative system, which was designed to contribute effectively to the satisfaction of agricultural credit applications and to adopt the name of rural banks for all existing peasant associations.
1900	a new category of "credit comrades" appeared	
1915	the first federal county of loan and savings company, "Codrul"	was set up in Calarasi in Lapusna County.
1918	Bessarabian Union of Credit and Savings	had four county branches and 149 associate units, 23 Unions of credit and savings comrades, small loans of zemstva and consumers cooperatives were activating
July 1, 1918	23 Unions of credit and savings comrades, small loans of zemstva and consumers cooperatives	all of these have merged into Cooperatives Unions Central from Bessarabia, which started to function from September 1918, as the headquarters of credit and consumer societies and which has been liquidated under the Law on Unification of Co-operation from March 15, 1923.

Source: developed by the author based on material [2].

According to historical dating, at the beginning of the 20th century, under the influence of official propaganda, a new category of associations of "credit comrades" appeared. From a legal and

administrative point of view, there were no differences between loan and savings and credit associations. The only difference was that the loan comrades had their own equity, formed of social parts, but the credit comrades did not have such capital, their funds being allocated by the state. In most cases, small-scale credit comrades and often those of loan and savings were made with borrowed funds from the State Bank and later from the Zemstva House, obtained for a period of 13 years, with the obligation for debtor cooperatives to pay each year the quota originally set for the repayment of the debt, starting from the fifth year after the receipt of the loan.

Overall, the evolution of the cooperative credit organizations in Bessarabia did not have such significant effects, these institutions did not evolve because the necessary economic conditions were lacking and the population did not know perfectly their commitment and how they were organized. Unfortunately, the good tradition of mutual aid institutions has been wiped out by the 1940 government. Respectively, during the 1940-1989, mutual financial support existed informally within the enterprise working teams, but since they were not formally organized, they did not had the magnitude of an important economic and financial phenomenon.

The activity of the microfinance sector in the Republic of Moldova

The activity of the microfinance sector in the Republic of Moldova starts at the end of 1996, representing a new phenomenon similar to other segments of the financial market, with potential for growth. The emergence of this sector was caused by the need for microfinance activity of the rural sector, as well as the financial support of the small and medium business, namely the entrepreneurial activity in the sphere of production, trade and services.

Therefore, at the end of 1996, in order to support the private agricultural sector, the *Rural Finance Project*, approved by the Government of Moldova, was launched in the Republic of Moldova. This project is focused primarily on rural and middle-income rural population who have received or should have received their share of agricultural land and value. The aim of the project was to develop and test some forms of bank co-operation of citizens for mutual financial assistance.

The phenomenon of microfinance in the Republic of Moldova is considered to be young and the creation period started in 1997 with the first Savings and Loan Associations (SLAs) under the Rural Finance Project financed by the World Bank, when the Moldovan commercial banks did not lend for all segments of the population, and the procedure for granting credit was too complicated, especially for those in rural areas. Another important event is the creation of the Moldovan Microfinance Alliance in 1997. Therefore, in 1998 the National Federation of SLAs and the State Surveillance Service were founded. Afterwards, microfinance organizations (hereinafter MOs) were also set up: the Rural Financing Corporation in 1997, ProCredit in 1999 and Microinvest in 2003.

On June 13, 2003, the Government of the Republic of Moldova approved the Plan of Measures for Preparing for the International Year of Microcredit - 2005 (*Decision of the Government of the Republic of Moldova no.723*), according to which the Ministry of Economy, in cooperation with the local public administration authorities, has elaborated the National Program for Mediation of the Objectives of the International Year of Microcredit - 2005 "(*Government Decision of the Republic of Moldova no.1106 of October 8, 2004*). As a result, 2005 was proclaimed as the International Year of Microcredit, at the United Nations initiative, while the Member States, non-governmental organizations, the private sector and civil society aimed at boosting micro-credit programs and contributing to increasing knowledge to the society of the role of microfinance in solving socio-economic problems.

The regulatory framework for the microfinance sector

The legal-regulatory framework, which regulates the activity of the microfinance institutions, was further developed. In this context, during the period 1997-2018, the framework for regulation of the microfinance sector was finalized with a series of laws and normative acts (regulations, instructions, decisions,), which concern the activity of microfinance organizations and savings and loan associations from the Republic of Moldova.

The legal framework of the activity of the microfinance sector, in 2004 - 2017, is regulated by Law no. 280-XV of 22.07.2004 regarding the microfinance organizations and the Law of Savings and Loan Associations no.139-XVI of 21.06.2007.

At the beginning of 2018, a new law was adopted and approved by the Parliament of the Republic of Moldova on non-bank lending organizations that is supposed to replace Law no. 280-XV of 22.07.2004 on Microfinance Organizations, with the entry into force on October 1, 2018.

Therefore, we note that the "old" Law on Microfinance Organizations from 2004 does not include levers to mitigate potential risks, in addition to lending, and the role of the NCFM (as a supervisor of the field) was reduced to "monitoring", while the "supervision" element is absent. Thus, among the existing institutional deficiencies can be summarized the following ones:

- ✓ lack of explicit restriction of attracting repayable resources from the population,
- ✓ lack of provisions allowing entities to cumulate freely different types of activity such as financial leasing and lending;
- ✓ lack of a mechanism for authorization and registration of microfinance entities,
- ✓ absence of single common provisions for establishment of provision to cover potential losses related to the non-repayment of loans,
- ✓ no requirements in terms of corporate governance,
- ✓ exigencies to administrators and founders.

Under the new Law on Non-Banking Loan Organizations No.1 of March 16, 2018, non-banking lending organizations are meant to ensure the development of the non-banking lending field, including by preventing excessive risks in the system and increasing access to financial resources for individuals and legal entities. Therefore, according to the provisions of the new law, the non-banking credit organization is a limited liability company or a joint stock company, which carries out professionally only the non-banking lending activities, namely: the granting of non-bank loans and financial leasing. Thus, the main new basic provisions of the law focus on:

1. clear and explicit definition of the activity of non-bank lending organizations;
2. ensuring the conditions for defending the rights and legitimate interests of creditors, donors, clients, as well as of founders, associates and shareholders of non-bank lending organizations;
3. express setting of permitted and prohibited activities to be carried out by these organizations;
4. introducing the requirements related to the requirements to the administrators and founders of the non-bank lending organizations;
5. establishing the procedure for issuance of the pre-approval notice, including the necessary documents to be submitted to the NCFM for the establishment of the non-banking credit organization, the obligation to register in the Register of non-banking lending organizations held by NCFM and the grounds for suspension and deletion from the respective register;
6. introducing the authorization requirement and establishing the minimum admissible own funds requirement of 5% of the value of the assets;
7. mandatory audit if the balance sheet value of the assets exceeds 50 million lei at the end of the management period;
8. introduction of a minimum amount of the social capital, (the minimum social capital of the organization is set at 300,000 lei and must be deposited in full by its founders in cash form, and the amount set is to be filled by 01.01.2021) ;
9. establishing certain prudential requirements such as limitations on lending, the obligation to create and classify provisions for loan losses, etc .;
10. introducing provisions on money laundering and terrorist financing.

In the author's opinion, the new legal regulations of the microfinance sector activity facilitate the proper functioning and development of the sector. Changes in the legal framework will also help improve the management of the non-banking lending organization (microfinance organizations) by creating an efficient and professional strategic management system.

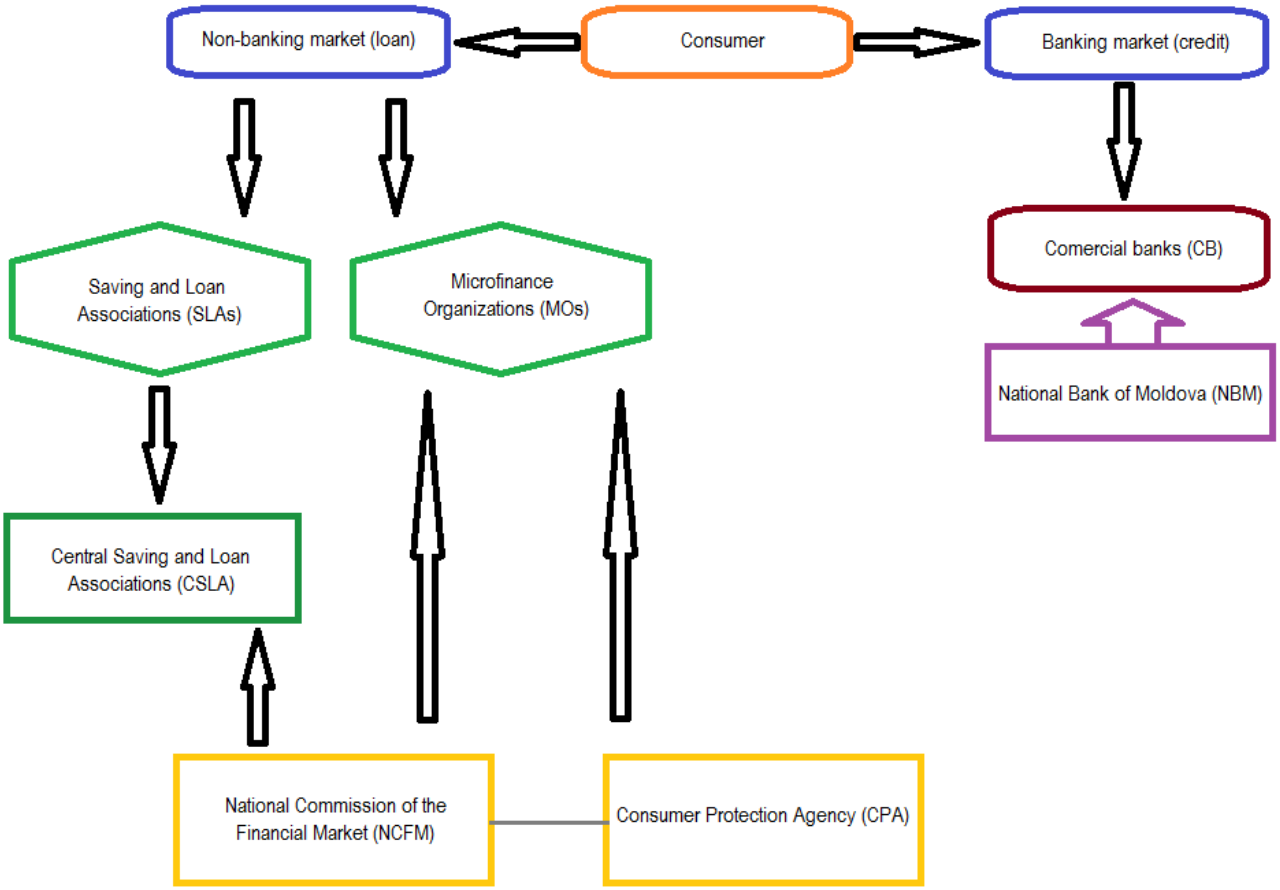
The structure of the non-banking credit sector (microfinance) in the Republic of Moldova

Structure of the non-banking lending sector (microfinance) in the Republic of Moldova involves organizations providing microfinance on the non-banking market, namely: Savings and Loan Associations, Central Association and Microfinance Organizations. Accordingly, the microfinance sector is supervised and regulated by the state body National Commission of the Financial Market (NCFM). Therefore, the National Commission of the Financial Market (NCFM) is an autonomous authority of the central public administration, responsible in front of the Parliament, which authorizes and regulates the activity of the participants on the non-banking financial market, as well as supervises the observance of their legislation ... *"(Art. 1, Law on the National Commission of the Financial Market No. 192-XIV of November 12, 1998 (in the redaction of the Law No. 129-XVI of 7 June 2007).*

The National Commission of the Financial Market defines microfinance as an additional source of funding for individuals and legal entities who want to obtain financial resources. This source of funding offers some benefits to the consumer over traditional bank loans, such as a shorter grant time and the ease with which they can be accessed, but may involve higher interest rates.

Thus, the functioning of the microfinance sector encourages the development of micro-credit activity by providing money to start a business, mainly in rural areas, thus facilitating access to cheap financial resources and stimulating private initiative. In this context, the author illustrates in Figure 1 the functionality of the banking and non-banking sector and their participants.

Figure 1. Structure of the non-banking and banking market in the Republic of Moldova


Non-banking market (loan)
Consumer
Banking market (credit)
Saving and Loan Associations (SLAs)
Microfinance Organizations (MOs)
Comercial banks (CB)
National Bank of Moldova (NBM)
Central Saving and Loan Associations (CSLA)
National Commission of the Financial Market (NCFM)
Consumer Protection Agency (CPA)

Source: developed by the author

From Figure 1, we observe that the consumer has two options to request a credit on the banking market or a loan on the non-banking market. The consumer on the microfinance market has the option to request loans from Microfinance Organizations or from Savings and Loan Associations (within the SLAs has the option to make savings). In this context, the author characterizes the functionality of each participant of the Moldovan microfinance sector, found in the Consumer

Protection Guide on the non-banking financial market in the Republic of Moldova. So the main participants of the microfinance sector are:

- *Microfinance organizations* that are joint-stock or limited liability companies, which provide loans under a contract with or without interest, to be repaid on maturity, according to the contract.
- *Savings and Loan Associations (SLAs)* are non-commercial organizations voluntarily constituted by natural and legal persons, associated with common principles, accepting savings deposits from its members, lending them as well as other financial services according to the category the license they own.
- Associations have the option of becoming members of a *Central Savings and Loan Association (CSLA),* which support the activities of associations through training, consultancy and even grant loans to them.
- The National Commission of the Financial Market (NCFM) is the authority that regulates and supervises the activity of Savings and Loan Associations, and in the case of Microfinance Organizations represents the authority to monitor their activity.
- The Consumer Protection Agency (CPA) plays an important role in the microfinance sector, is the supervisory authority on consumer protection law fulfillment, and in particular on credit agreements for individuals concluded by Microfinance Organizations. In the event of a violation of contractual rights by the MO, the consumer has the right to address the CPA in order to resolve the conflict.

The main difference between microfinance organizations and savings and loan associations is that microfinance organizations are categories of entities that carry out professional lending activities and do not attract deposits or other repayable funds by the public (members).

Therefore, the activity of the microfinance sector (non-banking lending sector) is complementary to that of banks, because they provide services that are not suited to the degree of risk that a bank can assume. The competitive advantages of non-banking financial institutions derive from the fact that they can be targeted to certain sectors of activity or groups of clients that benefit from both, a more flexible regulation and sometimes from certain tax incentives. In addition, non-banking financial institutions significantly strengthen the resilience of the financial system to shocks generated by economic crises. So, microfinance institutions have developed as an alternative to the banking sector. At present, the alternative for loans granted by commercial banks are the products offered by microfinance organizations.

The role and importance of this sector stems from the fact that many financial institutions are not willing to lend to micro-enterprises and small businesses because of the risks this sector is facing. Thus, access to finance for SMEs remains rather limited, but this sector can not be vital without an efficient and appropriate funding system.

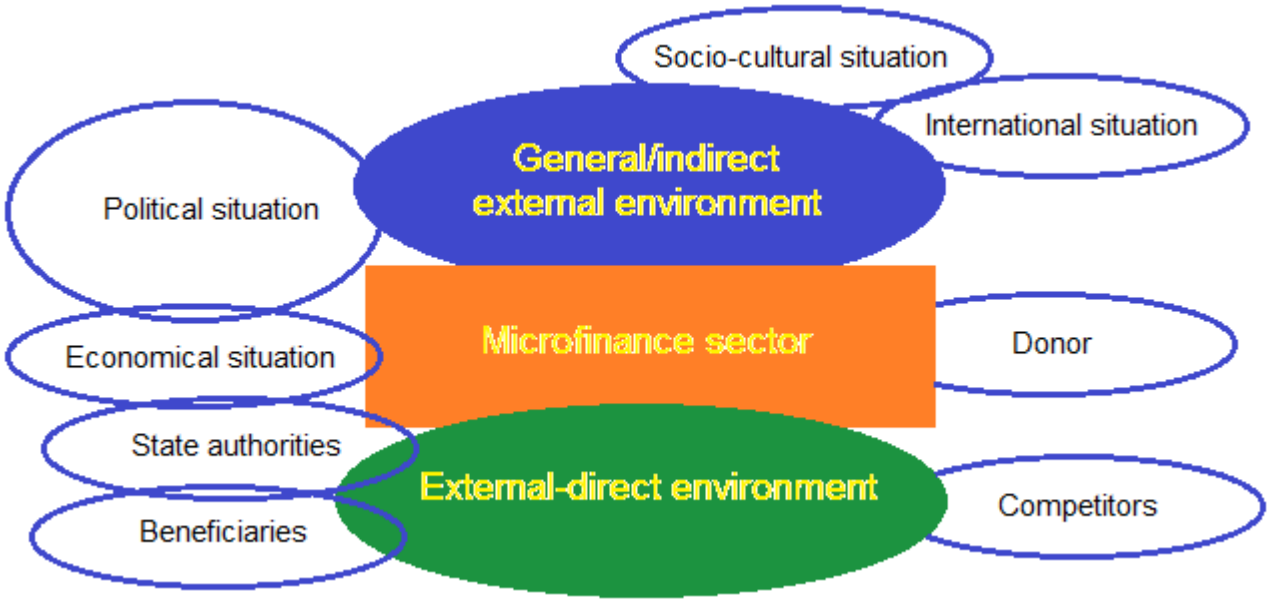
Taking into account the mentioned above, in our opinion, after choosing the banking or non-banking institution (in our case Mo or SLA), the main stage of granting a loan is the choice of products offered by microfinance institutions and the conclusion of the loan agreement with a MO or a SLA authorized by the NCFM. Thus, the consumer can request loans from the microfinance sector in the form of money in exchange for an interest, and at full maturity, the full amount of the loan is repaid. And the SLA offers its members the possibility of depositing savings in return for an interest. Next, it is necessary to mention a very important moment, the consumer, on the basis of a contract, will regularly pay a rate, consisting of the actual loan plus interest, according to a payment schedule that he will receive together with the loan agreement. And in the case of SLAs, the consumer / beneficiary will have to get membership by paying a membership fee before calling for SLA services.

In this respect, the author emphasizes the importance of concluding the loan agreement between the consumer and the MO, by setting out the mandatory requirements that the MO has to comply with in drafting the loan agreement in accordance with the Law 202 of 12.07.2013 on credit agreements for consumers.

The activity of microfinance organizations in the Republic of Moldova and other countries depends to a large extent on the external environment of the organization. For a more efficient operation of the organization, managers need to be aware of all endogenous and exogenous variables that influence the work of the microfinance organization (MO). Thus, the success of the organization

(MO) depends largely on the degree to which the organization manages to accommodate and control the influence of factors in the external environment. Factors outside the organization acting in one form or another on it represent the context in which the organization exists. Next, we will elucidate the external factors that have direct and general influence on the microfinance institutions represented in the scheme below:

Figure 2. Structure of the external environment of MO in the Republic of Moldova



Source: developed by the author

The external environment of organizations is reflected by factors that have a direct and indirect or general influence, so we explain:

1. the general / indirect external environment are the factors with indirect action on the organization manifesting their influence through: macroeconomic, international, political, socio-cultural environment.

2. the direct external environment is represented by factors with a direct influence on the organization and consists of: creditors, competitors, beneficiaries, government institutions.

In the author's opinion, microfinance organizations are indirectly influenced by factors in the general aspect of the external environment such as: the country's economic, political, socio-economic and international situation. Thus, the microfinance sector presents major opportunities for SMEs in providing access to financial services, creating new jobs, building an important tool for entrepreneurship development and increasing the country's macroeconomic indicators.

Further, the author proposes to analyze the influence of direct external factors on microfinance institutions such as: government institutions, creditors, beneficiaries and potential competitors.

Therefore, ***central public administration authorities*** have a direct influence on the microfinance sector:

1. Parliament (issues laws);
2. President (promulgates laws, issues decrees);
3. NBM (regulates and supervises the financial activity of banks);
4. The Ministry of Finance (regulates and supervises the financial activity of SLA, regulates the keeping of financial records and the presentation of financial reports, as well as carries out external audit);
5. The Ministry of Economy and Infrastructure (regulates competition, provides support in small business development, develops economic and social forecasts and programs);
6. The State Tax Inspectorate (defines the way of keeping the tax records, calculating and paying the taxes).

The Republic of Moldova obtains financial support from different international financial institutions, being called ***donors or creditors***, which offer a wide range of financial resources to the SMEs sector and the microfinance sector through a range of programs.

The ***donor community*** includes organizations that provide technical and / or financial assistance to the microfinance sector and, sometimes, to customers of this sector. International organizations such as: the World Bank (WB), the United Kingdom Department for International Development (DFID), the SOROS-Moldova Foundation, the Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ), the US Agency for International Development USAID), etc. may be mentioned in this regard.

The Government of the Republic of Moldova has been financially supporting microfinance, since 1997 till now, by guaranteeing loans from the World Bank and IFAD (International Fund for Agricultural Development) to finance small rural businesses.

The donors of the microfinance sector are:

1. The World Bank has developed and implemented, since 1997, the first rural funding project. It has granted, under the state guarantee, a 5 million USD credit. The loan is granted to CFR for the re-loan of SLAs. The WB has developed and implements the RISP program. Financial resources are also provided under State guarantee for business lending in rural areas. OSI and the Soros-Moldova Foundation have financially supported, through the MMA, the creation and development of SLAs since 1997. Since 2003, the OSI / Economic and Business Development Fund has provided technical and financial assistance to MicroInvest
2. GTZ has been financially supporting FIDES since 1997 to develop the concept of SLA. In particular, FIDES consulted the MMA to develop the SLA network, assisted in the drafting of the SLA law and the national accounting standard for SLAs. At the same time, FIDES is currently consulting the NFSLA the elaboration of the strategic plan for the development of this federation and of the SLA network.
3. The Government of the Netherlands granted a grant in 1997 to credit the first SLAs. In 1997 and 1998, it funded World Women Banking, which provided MMA assistance in setting up and developing the SLA network.
4. DFID, since 1999, provides technical and financial assistance to CDR in the creation and development of SLAs in the northern area and in Gagauzia's territorial-administrative unit. With the help of consultants, manuals for specialists from SLAs were edited.
5. USAID in the Republic of Moldova has been providing assistance for the development of SLAs since 1999. USAID, through its subcontractors (BIZPRO, EWMI, CNFA, etc.), supports CDR, MMA and NCFM. Since 2001, USAID, through BIZPRO, also provides training to banks wishing to be actively involved in financing small business.
6. IFAD began its activity in 2000 in Moldova. It has provided, under state guarantee, a credit that will be disbursed by banks for the creation and development of small and medium-sized businesses in rural areas. On the other hand, IFAD provides development grants for NGOs to prepare agribusiness plans.

Conclusions

From the above analysis, we find that microfinance is an important source of financial capital for both individuals and SMEs. It is important to note that the activity of microfinance organizations is not a licensed one, as well as the ban on accepting savings deposits. Thus, those who lend to microfinance organizations assume the risk of loss in the case of non-reimbursement of the value of the loans, by giving adequate confidence to managers of microfinance organizations.

We find that microfinance in the Republic of Moldova continues to remain a good opportunity for operators who buy or have cheaper financial resources compared to those offered by banking institutions, and liberal regulations attract new operators on this segment, especially foreign capital. Further, the author delimits the most important *advantages of microfinance institutions compared to banking institutions*, they being:

- Rapid processing of the file, accessibility of services by reducing the number of acts and flexibility of the repayment schedule with stronger logistical support and higher degree of risk-taking;

- Serving the start-up entrepreneurs and self-employed people, customers without salary certificates.

From the above, we conclude that the evolution of the microfinance sector shows that it has small proportions in the country's economy, compared to the banking sector, its coverage is very wide, providing lending services complementary to those available in the banking sector small and medium-sized enterprises throughout the country.

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FINANCIAL IMPACT OF APPLYING EU REGULATIONS ON COMPETITION AND COMPETITIVENESS

Silviu-Marius ŞEITAN[138]

Abstract

Generally speaking, and considering the national macroeconomic pattern of the requirement for evolution of the economic market as source of the general economic and social development – pattern which must functionally rely on the cooperation between the macroeconomic and microeconomic environments, and looking at the economic market like at a puzzle full of an ordered, yet heterogeneous multitude of market actors, the issue of the state aids must be understood within the context of the implementation of strategies of development, at the macroeconomic level, as an investment which the macroeconomic administrator makes in view of the subsequent acquisition of added value; as we mentioned, the main purpose of the investment is the creation of added value, which is nothing else but one of the main fundaments of the monetary creation – aspect which is indissolubly related to the idea of evolution, more precisely, to the idea of economic development.

Keywords: *regulation, market, competition, competitiveness, efficiency*

JEL Classification: D 50

Introduction

As main norms of the policy on competition within the European Union, the law forbids the enterprises to:

- Agree on prices or to share the markets among them (Article 101 from the Treaty on the Functioning of the European Union (Treaty on the Functioning of the European Union - TFEU)];

- Abuse of a dominant position on a specific market in order to remove the smaller competitors (Article 102 from TFEU);

- Merge, as long as this operation would allow them to take control of the market. The large enterprises which activate within the EU business environment cannot merge without the approval of the European Commission, even if their headquarters is outside the EU (Regulation of economic concentration).

EU norms also regulate the aids of the member states for the enterprises (state aids), which are verified by the Commission (Article 107 from TFEU). For instance, if particular conditions are not observed, the following aids are forbidden:

- Loans and subsidies;

- Fiscal facilities;

- Goods and services provided at preferential prices;

- Public guarantees which increase the credit rating of an enterprise, compared to its competitors.

Also, it is not allowed to grant state aids, irrespective of their form, to the enterprises in difficulty for which there is no hope of becoming again economically viable.

Regarding the granting of state aids, according to the European opinion, within the context of the free competition on the internal market and, particularly, of opening the public services towards competition, the member states intervene sometimes by using public resources to promote particular economic activities, or to protect particular national industries; by favouring specific enterprises in relation with their competitors, the state aids can disturb competition.

The state aids are banned on grounds of the Treaty on the Functioning of the European Union. However, some exemptions authorize state aids justified on the grounds of objective of common

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interest, such as services of general economic interest, if they don't distort competition in a degree that runs against the public interest. Therefore, monitoring the state aids by the European Commission aims to evaluate the balance between the positive and the negative effects of such aids.

The description of the problem

The European regulations on state aids apply only to the measures that meet all the criteria mentioned in Article 107, paragraph (1) from the Treaty on the Functioning of the European Union (TFEU), namely:

(a) Transfer state resources

The norms regarding the state aid include exclusively measures that involve the transfer of state resources (including from national, regional and local authorities, public banks and foundations, etc.). Furthermore, it is not necessary that the aid is provided by the stat as such. The aid can be granted by an intermediary public or private body appointed by the state. This aspect concerns, for instance, the case in which a private bank administrates an aid program for the SMEs financed by the state.

The financial transfers that are state aid can take various forms: subsidies, low interest rates, collaterals for loans, provisions due to the method of accelerated amortisement, capital injections, fiscal exemptions, etc.

(b) Economic advantage

The aid must materialize in an economic advantage which the company would have not otherwise had. Below are some less obvious examples which meet this condition:

- A company purchases/rents public land at a price lower than the market price;

- A commercial company sells to the state land at a price higher than the market price;

- A commercial company has privileged, free access to infrastructure;

- A company gets risk capital from the state in better conditions than from a private investor.

(c) Selectiveness

The state aid must be selective, thus influencing the equilibrium between some companies and their competitors. "Selectiveness" is the one which differentiates the state aid from the so-called "general measures", measures that apply to all economic sectors from a member state (for instance, most national fiscal measures).

A scheme is considered "selective" if the authorities that manage it enjoy some discretionary power. The criteria of selectiveness is also met if the scheme applies just to part of the territory of a particular member state.

(d) Effect of competition and trade

The aid must have a potential effect on the competition and trade between member states. It is enough to prove that the beneficiary is involved in particular economic activity and that it activates on a market in which there are trade activities between the member states.

The nature of the beneficiary is not relevant within this context (even a non-profit organisation can have economic activities).

The Commission considers that the aid in small amounts (de minimis aid) doesn't have a potential effect on the competition and trade between the member states. The Commission considers therefore that such aid is not governed by Article 107, paragraph (1) from TFEU.

In terms of the eligibility criteria for state aid within the European Union, the aid measures that meet the eligibility criteria stated in Article 107, paragraph (1) from TFEU are, in principle, incompatible with the common market. Nevertheless, the principle of compatibility doesn't extends to total ban. Article 107, paragraphs (2) and (3) from TFEU specify a number of cases in which the state aid can be considered acceptable (the so-called "exemptions"), referring to the compatible

aids. The existence of these exceptions allows the European Commission to verify the state aid projects, as per Article 108 from TFEU.

This article stipulates that the member state must notify the Commission concerning any intention to grant state aid before doing it. The article also empowers the Commission to decide whether the proposed aid is compatible or to decide "suspending or modifying the aid by the particular member state".

In the exercise of its prerogatives, the Commission elaborated specific approaches depending on the size of the company, its location, the targeted industry, the purpose of the aid, etc. for the sake of transparency, predictability and legal security, the Commission made public its criteria that help checking the compatibility of the notified intentions of aid.

These publications were in the form of "Regulations", "Communications", "Frameworks", "Guidelines" and "Letters" to the member states.

One may distinguish three main categories of aid that are compatible according to Article 107, paragraph (3) letter (a) and Article 107, paragraph (3) letter (c) from TFEU:

(a) Regional aid

Article 107, paragraph (3) letter (a) and Article 107, paragraph (3) letter (c) from TFEU provide the basis for allowing the state aid intended to solve regional problems:

• Article 107, paragraph (3) letter (a) from TFEU applies to the state aid granted to promote the development of the "regions where the standard of living is abnormally low, or where there is a very low rate of employment".

• ticle 107, paragraph (3) letter (c) from TFEU deals with the aid for other regions (national) experiencing problems, "aids intended to facilitate the development … of particular economic regions". This article gives the member states the possibility to support regions that are disadvantaged compared to the national average. The list of the regions that qualify for this exception is also decided by the Commission, upon proposal by the member states. The member states can use national criteria to justify their proposal.

The criteria used to evaluate the regional aid are presented in the "Guidelines on national regional aid for 2007-2013".

(b) Other horizontal norms

The "horizontal" norms set the position of the Commission regarding specific categories of aid that are intended to approach problems that may appear in any industry and region.

Until now, the Commission adopted "Frameworks" and "Guidelines" or "Regulations for exemption by category", which set the criteria that must be applied to the following categories of aid:

• Aid to fight climate changes and for environmental protection;

• Aid for research, development and innovation;

• Aid to save and reorganize the companies in difficulty;

• Aid for small and medium enterprises;

• Aid for the employment of the labour force;

• Aid for training;

• Aid for risk capital;

• Aid for services of general economic interest.

(c) Sectoral norms

The Commission also adopted specific norms depending on the industry ("sectoral" norms), which define its position regarding the state aid in specific industries. The most important one, within this context, are the following:

• Specific sectors

Special norms have been adopted in time for several sectors characterized by different problems or exigencies that had to be solved through a specific set of norms. Until the present moment, these include the sectors of audio-visual production, radio broadcasting, coal, electricity (irretrievable costs), mail services, shipyards. There also are specific restrictions concerning the aid for steel industry and for synthetic yarns industry.

• Agriculture, forestry, fisheries and aquaculture

The norms that apply to these sectors are mainly set by the Community guidelines for State aid in the agriculture and forestry sector for 2007-2013 and in the Guidelines for the examination of State aid to fisheries and aquaculture.

• Transportation

Most of the general norms regarding the state aid, including the de minimis regulation apply for road transportation, although there are some exceptions (for instance, generally, the transportation equipment is not eligible for aid; the aid for the purchase of vehicles for land transportation of commodities is excluded from the de minimis regulation, and the de minimis ceiling was lowered to 100,000 Eur for the sector of land transportation).

The sectoral norms regarding the state aid also apply to other sectors of transportation (railways, air, sea and river).

(d) Specific instruments of aid

The Commission published several Communications which provide guidance for the use of the specific instruments of aid (guarantees, fiscal aid, injections of capital) or to calculate the amount of the aid.

Theoretical guide marks

At the microeconomic level, competitiveness refers mainly to the capacity of the companies to learn, to adapt rapidly to market conditions and to innovate.

At the macroeconomic level, competitiveness can be seen as a means to improve the standard of living while using optimally limited resources.

In the early 90s, speaking of competitiveness, Paul Krugman was saying that the companies are the entities competing between themselves, not the national states. To a certain extent, his statement cannot be contradicted. However, globalization and market imperfections make the public policy play an important role in the functioning of the economy, and compel the companies to consider the coordinates of their area of operation. Thus, competitiveness, in any of its forms, is strongly influenced by the public policies such as the fiscal policy, the budget policy, the competition policy, the general direction of the macroeconomic objectives, etc.

The policy in the field of competition exerts its influence on the competitiveness by means of the following two instruments:

- sanctioning the anti-competitional practices so as to rewards the efficient companies and sanction the inefficient ones;

- directing the state aids, mainly towards horizontal objectives: regional development, research-development, SMEs development, professional training, etc.

The regulations and legal norms that restrict competition have adverse effects on competitiveness because they determine, first of all, a slower rate of the process of technological modernization.

On the other hand, the national norms in matter of competition, harmonized with the community norms, may have the beneficial effect of establishing equal opportunities on the market for all the economic actors.

The existence of a solid competitional environment which to encourage the efficient companies to the detriment of the inefficient ones, may represent a stimulus for competitiveness through the following three levers:

- Ensuring an efficient allocation of resources;

- Stimulate the companies to organise their activity in a more efficient manner;

- Stimulate the innovating activity.

The more open are the markets to competition, the more visible are the beneficial effects on competition. The progress in liberalizing the market for services is a conclusive example in this direction. According to studies done within the European Union, the liberalization of the network industries – telecommunications, mail services, electric power, air and railways transportation, etc. – generated positive results for the consumers.

The opening of the European market of telecommunications decreased by 23%, from 1996 to 2000, the tariffs charged by the EU operators.

The national legislation in the matter of competition is harmonized with the community acquis, and the specific regulations are applied at European standards. These developments established part of the premises required for the consolidation of the national economy competitiveness, so as to enable it get properly prepared against the challenges and to take advantage of the opportunities created by the mechanisms specific to the European market.

Theoretical approach – stating the problem

Both conceptually, methodologically, and, particularly functionally, granting state aids on specific markets should take into consideration several criteria, the most important ones being:

- Fair support to competitiveness;

- Ensure equal opportunity to these aids;

- The investments should rely on real bases for future progresses in the specific areas.

Having made these clarifications and passing to the economic actuality, in fulfilling the objectives of this analysis, we will compare two macroeconomic market models:

- Model of the national economy;

- Model of the regional economy.

The approach of these two situations, in terms of what we specified above, is fundamentally different, mainly because both situations have, as general objective, the economic and social evolution, but market functionality and thus the design and implementation of development strategies differ, because:

- In the case of the national economy:

    - Returning to the puzzle pattern, which approximates the composition of the market from economic actors, the constitutive heterogeneity of the economic market has the following elements:
        - Heterogeneity between economic sectors;
        - Heterogeneity within a particular economic sector, within the competing entities;
    - One of the aspects that must be taken into consideration when designing and implementing developmental strategies is an efficient contribution of the economic sectors to the formation of the GDP, the term *efficient* signifying here, the fructification of all economic strong points of the sectors to support the formation of the GDP;
    - There also are aspects of national interest, such as:
        - Protecting specific economic sectors from external competition;
        - Utilization of resources for strategic economic sectors;
        - Support some economic sectors whose contribution to the GDP is indirect (for instance, economic sectors of secondary importance, but who employ significant numbers of workers);
        - Protecting, in terms of value, the national currency in relation with other currencies, by the temporary support of some sectors which have a high rate and speed of contribution to the formation of the GDP;
        - Etc.

- In the case of the regional economy:

    - The puzzle pattern of the economic market is multiplied in several variants whose heterogeneity is as follows:
        - Heterogeneity between the national macroeconomic entities of the region;

- Heterogeneity between the economic sectors;
- Heterogeneity within a particular economic sector, within the competing entities.

We have to note, however, that during the early developmental stages at the region level, macroeconomicaly speaking, we can talk about economic sectors only at the level of the macroeconomic entities composing the region, which is an additional element of heterogeneity of the regional economic market;

- The rules and interests of allocating public aids to the economic sector are very different and they depend on the specificity of the region; in the case of the European Union, they are stipulated by norms and regulations associated to the Competition Policy in agreement with the Treaty on the Functioning of the European Union.

Aspects specific to the application of the norms of European competition policy

As comparative aspect between the two forms of macroeconomic markets, but this time seen in terms of the establishment of economic regions, the transfer of a macroeconomic system from the status of national to the status of component of a regional economic area means, in terms of the topic of this analysis, the change of the criteria and norms of granting state aids, just because the size, direction and problem specification are different for the two aspects of the market, even though, conceptually speaking, the central idea is the same; these differences are due both to the differences of functionality between the two forms of economic market, and to the associated differences of macroeconomic interests.

Regarding this aspect of the problem, we may highlight, in terms of quality, an economic impact of applying EU regulations on competition and competitiveness. From the list of EU Competition Policy norms, the element which produces the economic impact is the provision of state aids, the rest of the elements being valid for the national economic market too. A related subject to this topic, which not, however, object of this analysis, but which deserves an analysis, is the economic impact of establishing regional economic markets – impact which has two forms: for the macroeconomic entities advantaged by the early evolutional stages of the regional markets, and for the macroeconomic entities disadvantaged by the early evolutional stages of the regional markets.

Returning to the issue of the economic impact due to the norms of granting state aids within the EU, comparatively speaking, differences exist between the two forms of market – regional market and national market –in terms of the eligibility criteria for state aids:

- Market functionality with a higher level of complexity presumes a more restrictive set of rule on competition; for instance, the observance of the criterion according to which the state aid must not distort or threaten with distortion the existing or potential competition, would be an indicator of the much more restrictive eligibility conditions for state aid in the case of the regional market;

- Also, the concept of strategic economic sectors, being different in the case of the regional economic market, yields another element of restrictiveness in granting state aids in the case of the regional market compared to the national market;

- Another element of restrictiveness in granting state aids in the case of the regional market compared to the national market can appear in the case of labour force migration in the regional market, which might mean granting state aids, according to the norms of the national market, to economic entities whose support has no correspondent in the norms of the regional case, their competitiveness being thus potentially affected.

Essentially, as preliminary conclusion, granting state aids to the entities that participate in the regional market, is much more restrictive. This aspect, combined with that of the difference of economic advantage between the components of the regional market, at least during the early developmental stages of the regional economic market, raises problems to the competitiveness on the regional market: the lower competitiveness generally associated to the microeconomic entities from the economies composing the regional market, which are economically disadvantaged during the early developmental stages of the regional economic market, may worsen to the detriment of equity of access to the market. As addendum to the conclusion, the entities thus affected are the microeconomic entities and the individual national economies. Of course, this is just an aspect with

theoretical role in approaching the problem of any particular regional economic market; at the level of the European market, where the treaties of functioning of the European Union and the afferent institutional infrastructure allow negotiations at the general political level, and under the circumstances in which the legislation of competition and competitiveness still need fine-tuning and completion as the European market evolves, it is unlikely that any European member state will get to such a situation of economic disadvantage – hypothetic situation that would only deepen the heterogeneity between the components of the European Union, creating thus problems to the common economic programs.

We still have, though, the problem of the difference of restrictiveness regarding the eligibility norms for state aids, between the two forms of economic market.

Regarding the European norms for state aids, the following issues are thought to be a rich source of restrictiveness:

- Unless specific criteria are observed, the following aids are banned:

  - Loans and subsidies;
  - Fiscal facilities;
  - Goods and services provided at preferential prices;
  - Public guarantees which improve the credit rating of a company compared to its competitors.

The main criteria are:

- The state aid must not distort or threaten with distortion the existing or potential competition:

  - Changing the market conditions for the competitors;
  - Selective favouring in relation with the other competitors.

- It is also not possible to grant state aids, irrespective of their form, to the enterprises in difficulty for which there is no hope of becoming again economically profitable. A problem arises here: the economic disadvantage of some member states immediately after accession to the EU, which remained or even worsened due to the perpetuation of the differences of initial economic conditions (reference to the regional heterogeneity), and to their worsening because of the insufficient competitiveness for the single market, makes them fail to qualify for state aids – situation in which, as mentioned in the beginning of our analysis, disappears partially the function of investment of the state aid, with repercussions on the subsequent development of their (domains/entities) contribution to the GDP.

In conclusion, and as hypothesis, subsequently to the accession to the EU, the total volume of the state aids in the economy decreased. It is almost impossible to evaluate exactly the financial or economic impact of this decrease, because this decrease of the volume of the state aids in the economy may also be due to other factors, such as periods of budget restrictions.

General and specific problems of the economic impact in relation with the state aids

Arguments

Further to what we said earlier about the significance and role of the state aid, an aspect that has to be taken into consideration is that of targeting major objectives in germs of macroeconomic importance – the state aid can be considered to have a role of subsidiary instrument of macroeconomic policy too. The arguments for this point of view follow:

- The role proposed for the state aid is in no contradiction, what so ever, with the defining elements of the state aid or with the associated normative elements of applying it in practice;

- Taking into consideration this role of the state aid, this both completes the common significance of this form of economic support from public funds, and makes a justificatory and functional connection with the practical issues of managing this important instrument of macroeconomic policy. Such vision on the general problems of granting state aids (which must entail a complex administrative process consisting of strategy, programs, plans of measures, verification, evaluation

and, least but not last, correlation with the measures specific to the macroeconomic policies) is very necessary;

- This vision on the state aids responds to several problems regarding the use of public funds for such purposes, questions referring to the amount, destination and motivation;

- Such vision on the state aids is at the border of the economic and methodological protectionism and administratively speaking, one has to draw a line in the real cases, from this form of state intervention in the economy – form which may have an adverse effect on specific international economic agreements.

General problems

Thus, the state aids might be designed for various destinations and in relation with various motivations, such as:

- Stimulate the activity of some novel economic sectors;

- Support the activity of strategic economic sectors;

- Support the activity of less performant economic sectors (in terms of their contribution to the GDP), but which provide other direct or indirect economic advantages, such as impact on the demand, offer, employment, etc.;

- Restore the activity of important economic sectors, following the occurrence of economic shocks;

- Support the extra season activity of important economic sectors whose activity is season-related;

- Support the start of activity in important economic sectors / brands, with expected subsequent macroeconomic effect.

All these forms and motivations of the state aid are perfectly justified if this form of involvement of the state in economy is considered in terms of the mentioned vision; these forms of state aid suit perfectly the form of national macroeconomic system. Moreover, to complete the argument in support of validating this conceptual and methodological vision on the state aid in its mentioned forms, following are some principles of the macroeconomic administrative process:

- The state aids can be seen as serving the role of investments;

- Under the conditions in which the budget finds allow it, it is a more convenient variant (in terms of costs and associated conditions) to other forms of financial support;

- It is a formula which is much better associated to the general macroeconomic administrative process, than other forms of financing.

Given these considerations, one may also discuss about the economic and financial impact of applying, as principle, this vision on the state aid, within a national economy.

Specific problems

In agreement with the general topic of the analysis, the specific problems refer to the impact of applying the norms specific for the state aid, under the conditions of the presence of Romania within the macroeconomic framework of the European Union.

As already mentioned, the European economic market, in particular, and the process of European integration, in general, can be considered historically as pioneering processes in all the fields that are involved – situation in which, as it should normally be, there are parts of the legislative framework which are susceptible of changes according to the evolution of the processes and accumulation of experience. The problems of impact, seen comparatively with the case of the national economy, which the new regulations on the provision of state aids have, will be discussed here just principially, making a qualitative evaluation, like for the previous case.

Thus, the main problem of providing state aids is that of the competition on the European market:

- The state aid must not distort or threaten with distortion the existing or potential competition on the single market, with particular reference to the:

  - Risk of changing the market conditions for the competitors;

- Risk of selective favouring in relation with the other competitors.

Starting from these aspects, the problems of impact of the new regulations on the provision of state aids, seen comparatively with the case of the national economy, originate in the totally different market conditions between the two cases of economic market, national market and single market. On the single market, the conditions are more severe compared to those from the national market, given the much higher risks due to the higher complexity of the relations on the single market; the difference of the conditions of providing state aids comes from the differences of manifestation of the situations of competition. However, it is also true that a possible evaluation of the distortion or of the threat to distort the existing or potential competition, is rather approximative, because we can only make a qualitative analysis. We may thus conclude that, compared to the case of the national economy, in the case of the regional economy, the eligibility conditions for state aids are restrictive; more than that, the role of the state aid as subsidiary instrument of macroeconomic policy is much smaller, and in the perspective of the evolution of the process of European integration such role is pointless, at least in relation with the aspects, still national, of the establishment of the national economies in domains and subdomains.

Thus, the main forms of impact, when making a qualitative evaluation of the process of granting state aids, according to the conditions of the national economic market, are meaningless because we can no longer speak of a positive impact of the state aids seen from the following points of view:

- Economic:

  - Higher economic performance of the domestic market;
  - Stimulation of the economic relations within the domestic market;
  - Higher general competitiveness of the national products on the foreign markets;

- Financial:

  - Multiplication and consolidation of the domestic sources of gross revenue;
  - Eliminate the impact and the associated risks specific to other forms of financing.

Of course, this point of view is purely theoretical, corresponding to several aspects such as:

- The still perfectible legislative framework of the process of European integration, with possible negotiations in support of the national interest;

- Existence of situations of legislative void;

- Etc.

Nevertheless, there are forms for the partial continuation of allocating state aids – process that will probably be perfected, in a unitary variant, for the entire Union, when this means of intervention of the public funds in economy will be fundamented by a proper functional evolution of the European economic system.

Conclusions

The main elements of economic impact of applying the European regulations on competition and competitiveness have been identified in the field of the state aids for economic activity. They are due mainly to the fact that the difference of perception between the competition on the single European market and the competition on the former national markets required a more restrictive legislative framework.

Considering the state aid according to the vision presented in this paper, an investment and subsidiary instrument of macroeconomic policy, is a necessity which originates in the continuous need for improvement of the macroeconomic administrative system to match the fast, substantial evolutions of the economic market. This vision, however, has its concrete and necessary place in the model of national economic market, but it loses its meaning under the conditions of the integrated macroeconomic system of the regional market. The present moment of evolution of the single European market, and of the European macroeconomic administrative system, can be taken as a moment within the stage of transition from a very complex macroeconomic role of the state aid, to a much smaller role probably targeted mainly towards the economically non-productive sectors. Thus, the economic and financial impact of changing the position of a specific national

economy during this phenomenon of transition is, qualitatively speaking, decreasing and tending, probably, towards a much lower economic significance.

Actually, the size of this economic impact, represented by the difference of economic effects between the allocations of state aids in the two market models has, even in the case of the qualitative evaluation, just a theoretical value, because:

- In practice, the state aid was not used with a role associated to the hypothesis from which this paper started – situation which, according to the points of view presented above, is considered as the most complex and efficient application of the concept of state aids;

- Similarly, under the conditions of the regional market, the legislation is still being completed as consequence of the process of European integration, which is still in progress, and the strictness of applying the eligibility procedures for state aids is lower than the one theoretically presented in the analysis.

In reality, the economic impact has less constitutive elements and, would there be any method of quantification, the real value would be lower than the theoretical value presented in the analysis.

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GOVERNMENT SECURITIES TRADE AT BUCHAREST SECURITIES EXCHANGE AND THEIR EVOLUTION IN THE CONTEXT OF "CENTENAR" TREASURY BILLS ISSUES

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Abstract

The problem of public debt took front stage after the international financial crisis, when it became obvious that countries with a high level of public debt will have problems in refinancing it. As there are many countries in the European Union (EU) that have a public debt higher than the 60% level and a few with over 100%, it may pose a problem for the future of the union. Romania, as one of the countries that has a low public debt level, uses the stock exchange to finance and refinance its public debt. We will investigate the role of the stock exchange and the trading evolution in the context of new Government decision to reinitiate the sale of treasury certificates directly to population with the issue of Centenar treasury bills.

Keywords: public debt, government securities, Bucharest Stock Exchange

JEL classification: H63, H74

Introduction

The importance of governmental bonds has been acknowledged many years ago, as they are considered the safest form of investment from the securities market. Blanco (2001) scales the market importance for governmental bonds, banks and private investors. The government bond market is characterized by low risk level, high market liquidity and high spread of maturities (Matei et al. 2008; Anghelache, 2009; Anghel, 2011, Vasile &Matei, 2010).

Romania government bond market had a slow start, influenced by a prolonged transition period and an underdeveloped stock market. The region came into the attention of the International Monetary Fund (IMF) in 2002 when in its Global Financial Stability Report presents the development of local emergent markets of bonds starting with 1997, but only for Czech Republic, Hungary and Poland. According to IMF, this increase was generated by the development of institutions mainly in the public debt management sector (IMF, 2002).Szilagy et al (2004) says that these countries promoted market segment development for complex governmental bonds and achieve liquidity by increasing the long-term maturity of government bonds. At the same time, in Romania, Russia and Ukraine, the government bonds issues have been limited and prevented the growth and liquidity of these markets (Iorgova & Ong, 2008).

Realising the importance of government bonds market for an economy and future developments of markets for debt instruments in Central and Eastern Europe (CEE), these states should encourage the central and local government to consider the bond issues as an alternative for their investment projects (Matei & al, 2009a; Pop et al, 2012; Bunescu, 2016)

The literature provides lot of studies that tackle the problem of government debt. A large part is researching the European market for government bonds. Some leading studies on this topic are Blanco (2001), Pagano and Von Thadden (2008), which tackle the subject of European Monetary Union and its effect on the European debt market. Dunne et al (2006) presents the liquidity and transparency problems of European bond markets, also Dunne et al (2008) researches the aspects regarding the market for government bonds.

The case of Romania is under researched in the case of municipal and government bond market. One reason for that is the recent development of the market which started in 2004 (Alexandru, 2011). Despite the progress made, the bond market in Romania has a small size, a fact specific to Central and Eastern Europe (Bunescu, 2016, Matei et al. 2009b).

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Among the studies that were developed in Romania we recall Matei et al (2009), Grecu (2008), Mosteanu and Lacatus (2008); Lăcătuș & Văduva (2009); Pop & Georgescu (2015); Pop & Georgescu (2016) where different aspect regarding the bond market are presented. Aspects of the Bucharest Stock Exchange (BSE) government bond market where studied by researchers like Danuletiu (2010); Pop et al (2012) and Bunescu (2016).

The development of the bond market in Romania was generated by the financial decentralization of the public sector, a process in which local public authorities received new responsibilities regarding the management of financial resources and the initiation of infrastructure investment projects. In a financial market dominated by bank loans, after May 2001, mayors began to fund themselves through bond issues. Bond issuance proves to be a cheaper source of funding than bank credit, but local authorities have to meet the rigors of the capital market and Bucharest Stock Exchange (BSE), given that the vast majority of municipal bonds are listed on the stock exchange. In despite the many municipal bond issues, their share is rather low, comparable to that held by the corporate bond market dominated by issuers in the banking sector.

A particular impetus for the development of the bond market in Romania is the issue of bonds by international financial institutions such as the International Bank for Reconstruction and Development starting with 2006 The Romanian bond market is dominated by government bonds (which is why the Romanian market resembles the American market of the 60s), and since 2008 these values are listed on the Bucharest Stock Exchange (BSE). This is due to legal regulations as because the 2nd pillar domestic pension funds was launched in July 2008 and their portfolios was supposed to be formed by Treasury securities (Maria Andrada & Cornelia, 2013).

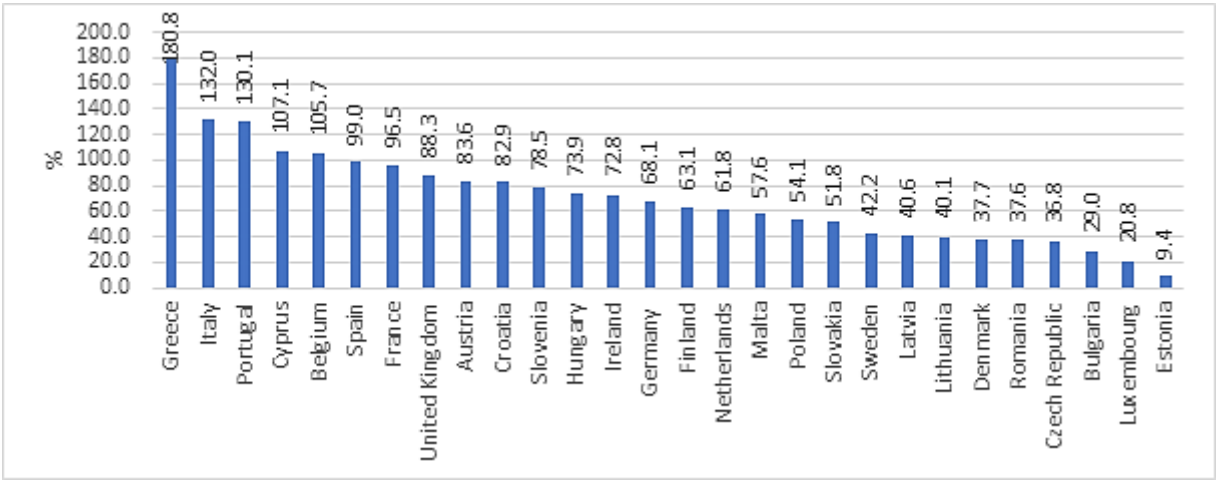
Taking in account all these considerations, in this article, we made an analyzed of treasury securities traded on Bucharest Stock Exchange.

Public Debt in The European Union and Romania

To analyse public debt in EU and Romania, we studied the evolution of the share of public debt related to GDP between the years 2008-2016. We observed that at the level of the EU-28 the public debt registered a growth of 44% from 57.5% in 2008 to 83.2% in 2016, while the Euro area (EU-19) registered a growth of 37% from 64.9% in 2008 to 88.9% in 2016.

All the countries from the EU registered an increase of the public debt share from GDP with one exception, Hungary which has a share of public debt of 57.6% in 2016 while in 2008 the share was of 62.3%. The highest increase of public debt share has been registered by Latvia with an increase of five times from 8% in 2008 to 40% in 2016. Slovenia and Ireland registered an increase of two times the level of 2008. Eight other members registered growths of two times.

Figure1. Public debt as percent of Gross Domestic Product in European Union in 2016



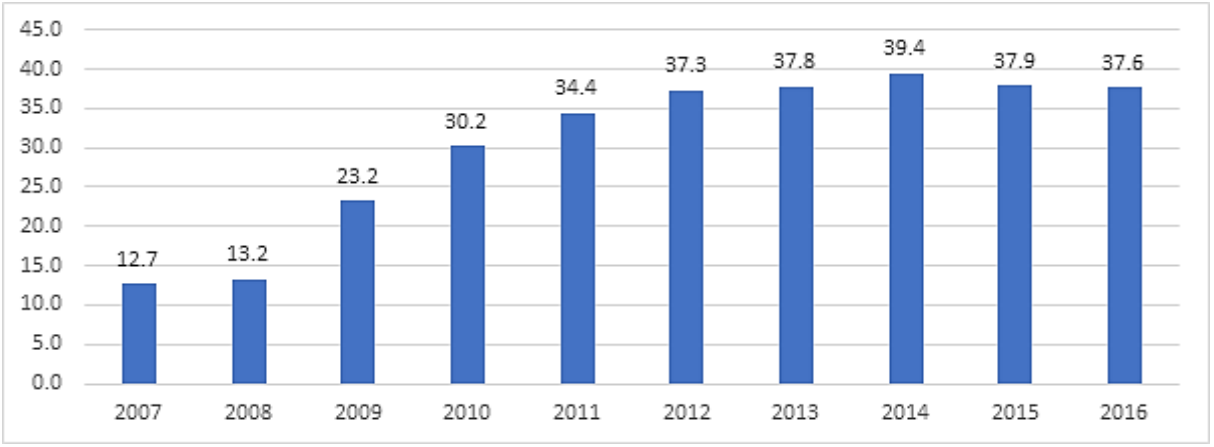
Source: Eurostat

As we can see from Figure 1, at the EU level in 2016, the public debt as percent of GDP ranges from 9.4% in the case Estonia to 180.8% in the case of Greece. Also, we observe that 16 out of 28 European member states registered a public debt higher than 60%, the limit that the Maastricht treaty (1992) imposed for sound fiscal policies along with the 3% annual deficit limit. More than that

5 countries, Greece, Italy, Portugal, Cyprus and Belgium registered a public deficit higher than 100%. This is not a novelty, previous studies (Levisauskaite et al., 2014) mentioning this situation for these countries. More, Romania has a relative low level of public debt, compared with other European Union members (Maria Andrada & Cornelia, 2013; Zaman, 2013).

Romania is the fifth country with the lowest public debt after Estonia, Luxembourg, Bulgaria and Denmark, with a debt of 37.6% of GDP.

Figure 2. Public debt as percent of Gross Domestic Product in Romania in 2008-2016



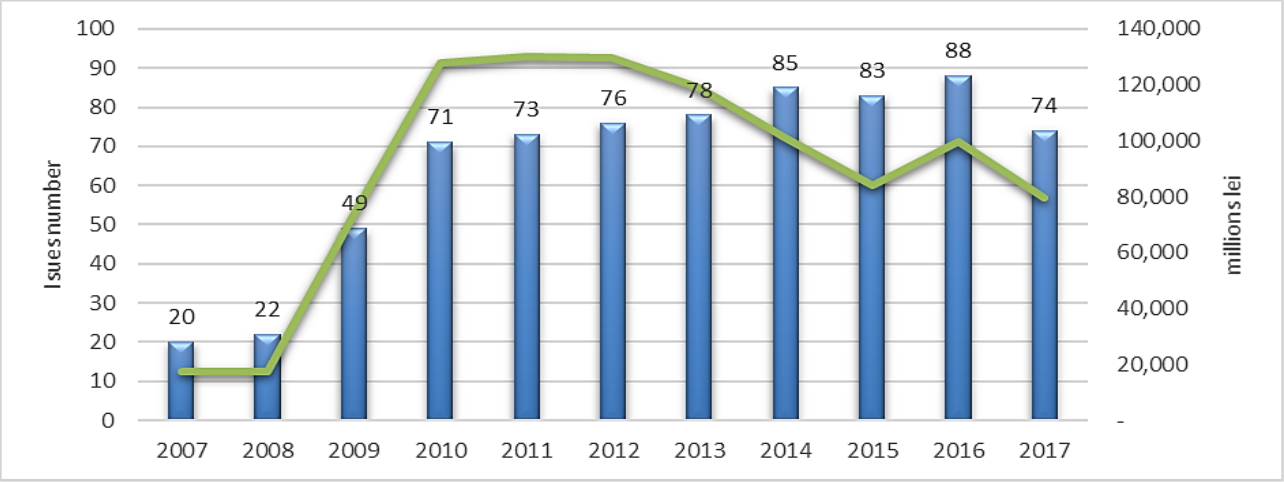
Source: Eurostat

In the case of Romania, we observe in Figure 2 that in the period 2008-2016 it has an ascendant evolution from 12.7% in 2008 to 37.6% in 2016 with a high of 39.4% in 2014. The main reason for the public debt growth was the international financial crisis which caught Romania in a bad financial state, with an overheated economy, fuelled by consumption based on imports.

The Evolution of Romania Government Bond Market and The Bucharest Stock Exchange

The government bond program is one of the main instrument by which the government attracts the necessary funds for its ongoing operations. Romania's government bond program registered an important growth between 2008 and 2010, when the number of issued bonds grew from 22 in 2008 to 71 in 2010. Starting with 2013 we observe that even if the number of government bond issued grew, the total value of those bonds started to decline.

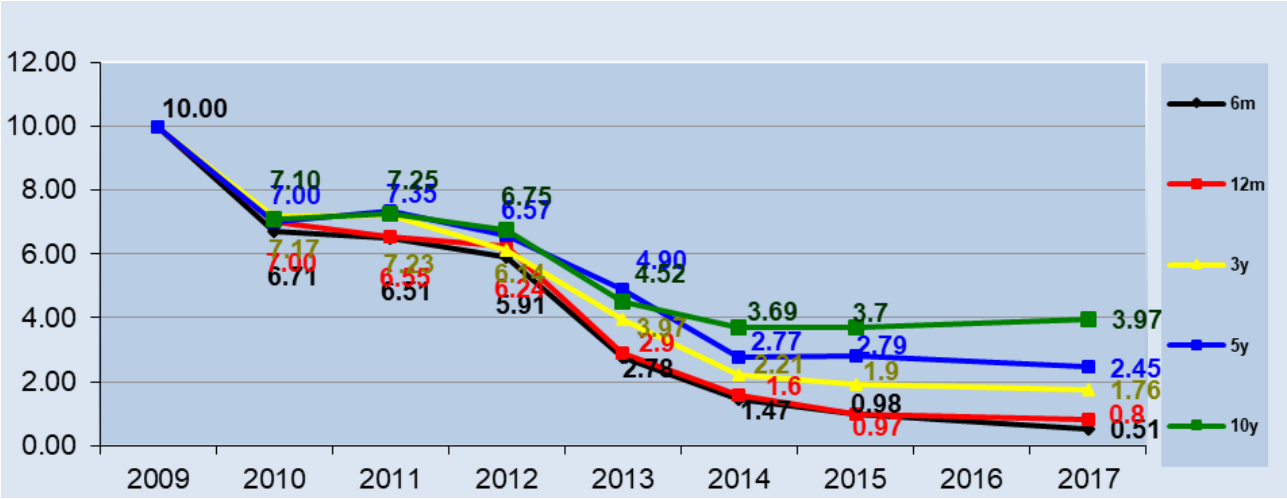
Figure 3. Government bond, treasury certificates issued and value 2007-2017



Source: National Bank of Romania (NBR)

The yields of the government bonds are another important aspect as they have an important effect on the success of the issue. If the interest rate is not high enough there will be no buyers for that bond issue.

Figure 4 The yields evolution on different maturities for Romanian debt



Source: NBR

After the international financial crisis and the speculative attack on the national currency, the interest rates went up. As we can see in Figure 4, according to data from the National Bank of Romania in the last six years the interest rates for governmental bonds registered an important decrease from 10% in 2009 to 3.97% in 2017 for 10 years maturity and to 0.51% for 6 months maturity. Another important aspect is the spread of interest among different maturities from 0% in 2009 to 3.46% in 2017.

Compared to bank deposits, Treasury securities offer higher returns, making it attractive not only to the population but to foreign investors (Matei et al, 2009b; Zaman, 2013).

In 20018, in view of the 100th anniversary of the Great Union, the Ministry of Public Finance launched the Thesaurus Program - the Centenary Edition. Two programs of bonds exclusively for the population (in June and in August) worth 1 leu were held within this program. For the first issue, the interest rate was 5% and matured at five years, while for the second issue the maturity was set at 3 years and the interest rate was 4.5%. The high interest of the population for these titles is due not only to the high interest rates compared to the bank deposits, but also to the fact that the related incomes are non-taxable. By the end of the year, other programs may be launched, possibly with other maturities, up to the annual ceiling of 4 billion lei set for 2018. The main disadvantage of these titles is the long period of blocking of the invested amounts.

According to the issue prospectuses, the securities cannot be redeemed before maturity, they are non-transferable and are not traded. For this reason, the Ministry of Public Finance intends to make the Thesaurus Program more flexible to allow the transfer of ownership over government securities to another investor the natural person and their redemption by the state before maturity.

Conclusions

Even though the market for governmental bonds issues has been in place since 1994 and the secondary market since 1996, it didn't provide the required benchmark for investors until 2007 when a secondary market was in place at the Bucharest Stock Exchange. After the BSE took the role of secondary market the government bond market still didn't reached the required liquidity because the efforts of National Bank of Romania (NBR) and BSE were not sustained by the Ministry of Public Finances (MPF).

The MPF lacks the flexibility and the transparency to provide the support for government bond market to become the benchmark it is required for Romanian market investors.

Lately the MPF started to give to the government bond market the required attention, but there are still a lot of deficiencies to provide a transparent, flexible and liquid government bond market.

The launch of the centenary bills may be another blow to the BSE as these bills can't be traded on the secondary market. The BSE hopes that the next issues may have the permission to be traded on the secondary market, providing so a much-needed liquidity for the potential investor and as a result an increased interest for these bills.

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POSSIBLE CONTRIBUTIONS OF THE COLLABORATIVE ECONOMY TO ACHIEVING THE SUSTAINABLE DEVELOPMENT OBJECTIVES IN ROMANIA

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Abstract

Scientific research based on unequivocal statistical data has reported that the tendency to deplete natural resources, correlated with population growth and the effects of pollution, lead mankind to an uncertain future.

This article aims to investigate how the collaborative economy can contribute to the achievement of sustainable development objectives in Romania, while highlighting the benefits it can generate in the economy.

The hypothesis from which this article starts and which it aims to confirm is that the development of the collaborative economy will lead, on the one hand, to a reduction in the pollution of the environment and, on the other hand, to a more efficient use of natural resources.

Keywords: collaborative economy, sustainable development, natural resources, pollution

JEL classification*:* Q01, Q55

Introduction

Climate change, increasing inequality (uneven distribution of income), depletion of natural capital are just some of the challenges of the current economy that have given rise to a broad debate on the need to rethink the paradigm of economic development.

Widely recognized economists, disagreeing with the principles of economic growth promoted by mainstream economic theories, have laid the foundations for extensive literature centered on the concept of sustainable development.

Although economic growth models (such as post-growth, de-growth) have advanced in the margins of this new development philosophy, the main global economic players have transposed sustainable development into public policy, through an adaptation of the current system to the social and environmental conditions.

At the EU level, in addition to the policies launched to promote sustainable development, other economic initiatives have been encouraged to contribute to and sustain sustainable development, including circular economy, data economy, and collaborative economy.

Romania's adoption of the principles of sustainable development was achieved by adding in 2008 the National Strategy for Sustainable Development, which is currently (10 years after adoption) in the process of updating and evaluating the recorded results in relation to the objectives set by the 2030 Agenda for Sustainable Development (United Nations-adopted document). By adopting this Strategy, Romania has formally aligned with the UN and EU standards, but some of the legislative initiatives with an impact on this area indicate a lack of firm commitment and coherent strategy for achieving sustainable development goals.

On this background, this paper proposes a comprehensive analysis of the possible contributions that the development of the collaborative economy can bring to the achievement of the sustainable development objectives assumed by Romania within the National Strategy for Sustainable Development.

At the same time, this paper aims at highlighting the substantial potential that Romania has to take on a leading role in promoting, implementing and capitalizing on the opportunities specific to the collaborative economy, with clear benefits in terms of protecting biodiversity and unique and rich natural capital at its disposal.

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Description of the Problem and Conceptual Delimitations

I.Sustainable development has entered the public agenda as a major and urgent concern for the well-being of mankind with the launch of the The Limits to Growth report (also known as the Meadows Report) in 1972 by the Club of Rome, but the term Sustainable Development was first used in 1984 by Lester Brown, director of the World Watch Institute in Washington DC.

Through sustainable development we understand all the forms and methods of socio-economic development that focus primarily on ensuring a balance between social, economic and environmental aspects and elements of natural capital.

In Romania, sustainable development as a self-standing issue has been in the concern of a relatively small group of researchers, mainly from the academic and non-governmental area.

However, the sustainable development for post-communist Romania has constantly oscillated between the deindustrialisation process (which automatically attracted a reduction in carbon emissions) and the tendency to turn into a raw material supplier (with serious consequences on the environment).

This paradoxical and counterproductive situation introduced the sustainable development as a subject of public policy, initiated by the Ministry of Environment, which ended with the promotion of the National Strategy for Sustainable Development adopted by the Government in 2008.

Thus, following closely the European legislation, namely the European Sustainable Development Strategy, the national approach set the following sustainable development objectives:

1. *To limit climate change and its costs and negative effects to society and the environment.*
2. *To ensure that transport systems meet society's economic, social and environmental needs whilst minimising their undesirable impacts on the economy, society and the environment*.
3. *To promote sustainable consumption and production practices*.
4. *To improve management and avoid overexploitation of natural resources, recognising the value of ecosystem services.*
5. *To promote equal access to high-quality health care and to improve protection against threats to health.*
6. *To create a socially inclusive society by taking into account solidarity between and within generations and to secure and increase the quality of life of citizens as a precondition for lasting individual well-being.*

II. The definition of the concept of collaborative economy has been affected both by the disputes between a small number of specialists (each interested to impose their own vision and thus to claim the paternity of the concept) and their space and language of origin. Otherwise, without referring strictly to content that is more differentiated by nuances than by essence, the term collaborative economy is often replaced by ”collaborative consumption”, "sharing economy", "peer-to-peer economy", " on-demand economy " etc.

Thus, Rachel Botsman, one of the most authoritative voices in this phenomenon, proposed the following definition for the collaborative economy: an economic system of decentralized networks and markets that unlocks the value of the underutilized goods by connecting directly and unmediatedly the owner with the potential client.

The increasing size of the collaborative economy has led the European Union to assume, with the adoption of the Single Market Strategy in 2015, the development of a European Agenda for Collaborative Economy, which also provides guidance to Member States on how to apply European legislation in this area.

On June 2, 2016, the European Commission launched a Communication entitled "A European Agenda for the Collaborative Economy" to Parliament and the European Council, which is part of the Single Digital Market Strategy. In this Communication, the European Commission assumes that fostering a collaborative economy is key to achieving the objectives of the Single Digital Market Strategy and to creating a more flexible and efficient way of using existing resources and

labor. The European Commission has also highlighted the positive role that collaborative platforms can play in stimulating competition, but also on current consumer behavior.

Thus, the definition proposed by the European Commission in the sense of the above-mentioned Communication for the collaborative economy refers to "business models in which activities are facilitated by collaborative platforms that create an open market for the temporary use of goods or services often provided by individuals".

In the same sense, the collaborative economy involves three categories of actors:

- service providers who share assets, resources, time and/ or skills;

- their users;

- online platforms ("collaborative platforms") - facilitating transactions between the two parties.

Methodology and Scientific Research

Taking into account the fact that collaborative economy is estimated mainly by the use of probabilistic approximations, due to the lack of relevant data sets and conclusive indicators, it is difficult to determine the quantitative impact it determines in achieving the objectives of sustainable development, meaning in which the work rather proposes a theoretical display of the connection between collaborative economy and sustainable development.

Prevalently empirical and qualitative, this paper tries to estimate, from a theoretical to a practical approach, the impact which the collaborative economy can have in achieving the sustainable development objectives assumed by Romania.

The common basis of the research methods used is represented by the bibliographical documentation and the interpretation of specialized literature in relation to the continuous observation of the practical reality.

Practical Ways Through Which The Collaborative Economy Can Contribute To Achieving Sustainable Development Goals

Considering the novelty of the concept of collaborative economy and the relatively low penetration rate at the present moment, the assessment of the impact and contribution that this phenomenon can bring to the sustainable development of the planet will be based on a probabilistic interpretation, the resulting conclusions suggesting rather trends and directions of evolution with a relatively uncertain degree of materialization.

The hypothesis from which this assessment starts and which it is trying to confirm is that the development of the collaborative economy will lead, on the one hand, to a reduction of the pollution of the environment and, on the other hand, to the efficiency of the use of natural resources, as well as an increase in the citizens' standard of living.

Given the insufficient level of maturity and development of the Romanian economy, which cannot ensure the access of a large mass of population to high quality products, the collaborative economy can raise the standard of living and the quality of citizens' lives without affecting the country's trade balance (by limiting the transfer of value to the economies from which the goods are imported).

Also, in order to provide clarity and structure for the impact that the collaborative economy can have on sustainable development, a distinct assessment will be made for each of the sustainable development objectives established at the level of the European Union and taken over by Romania in its own sustainable development strategy.

1. Overall Objective of the EU SDS: To limit climate change and its costs and negative effects on society and the environment.

One of the fundamental arguments used to promote the collaborative economy is the contribution it promises to make in the fight against climate change.

Thus, all the arguments in terms of environmental protection are based on two major components:

- The reduction of waste and the amount of waste produced as a direct result of extending product life and use, considering that the same quantity of goods can meet the needs of many

people. To substantiate this idea, a series of data from specialized studies is produced, most notably the one conducted by the French Environment and Energy Management Agency (ADEME), which revealed that goods whose use can be improved (through loan, rental, exchange, resale) represent approx. one-third of household waste, and adopting specific co-operative behaviors can lead to a 20% reduction in waste.

Likewise, a study by ADEME also deals with the life and use of electronic equipment, the resulting conclusions suggesting that:

• 40% of the refrigerators are replaced, although they are in good working order;

• 25% of the washing machines are replaced, although they are in good working order;

• The technical lifespan of a TV is approx. 80,000 hours, while the duration of use does not exceed 60,000 hours.

• The average lifespan of a phone is estimated at 10 years, while in France statistics show that people change their phone every 2-3 years.

Based on these data, collaborative economy proponents say that similar situations are also recorded in clothing, furniture, toys, home and gardening tools, so that taking on behaviors specific to collaborative economy could cause a reduction in the production of those goods and, implicitly, in the quantity of waste produced, with a favorable impact on the environment.

- Reducing the energy consumption needed in order to produce a larger quantity of products as well as the energy they consume.

This component with a positive impact on the environment comes as an externality of the former, starting from the idea that if the quantity of goods produced is reduced due to the decrease in demand for the respective products, the environment also benefits from the reduction of the demand for the electricity required to produce the goods in question and for the independent operation of those goods.

Also, a significant impact on the beneficial effects generated by the collaborative environmental economy is driven by transport emission reductions, these issues being more fully addressed in the section bellow, about the next objective.

2. Overall Objective of the EU SDS: To ensure that transport systems meet society's economic, social and environmental needs whilst minimizing their undesirable impacts on the economy, society and the environment

The completion of the collaborative economy as an economic and social system accepted and promoted by the authorities is largely due to the real applicability of this system in the transport sector.

The most eloquent example is the Uber company, which, just six years after its launch, has become the world's largest taxi company valued at more than $ 60 billion without having even a car. Practically, the Uber model has proved the potential of collaborative economy and has inspired the launch of many other collaborative platforms.

Also with application in the field of transport, an equally eloquent example is the BlaBlaCar company launched in France, which has reached from one million users in 2011 to 25 million users in 2015. BlaBlaCar representatives estimate that members registered on the platform as drivers have accumulated savings of approx. 250 million euro and contributed to the reduction of carbon emissions by approx. one million tons of CO2.

Whether we are talking about Uber or BlaBlaCar, the purpose of both platforms is to capitalize on the latent and/ or wasted potential and to contribute, by promoting these collaborative economy behaviors, to protecting the environment and meeting the economic and social needs of communities which they serve. Thus, in addition to the fact that the users of the services provided by those platforms benefit from favorable prices and hence higher mobility, perhaps the most important impact it generates concerns the reduction of carbon emissions, knowing that the transport sector determines 50% of the consumption of fossil fuels.

3. Overall Objective of the EU SDS: To promote sustainable consumption and production patterns.

Leaving aside the clear benefits that the collaborative economy brings in combating climate change by cutting emissions, the greatest contribution it brings to the sustainable development of humankind is to promote a more responsible and sustainable consumption style .

An essential argument for changing consumption patterns is the results of annual research made by the Global Footprint Network and WWF, which in 2018 revealed that mankind consumed the resources that the planet is capable of regenerating over that year on August 1, and the trend shows continuous depreciation. As a term of comparison, in 1961 mankind consumed three quarters of the resources generated by the planet in one year, the ecological deficit occurring in 1973.

Although the collaborative economy is by itself a more sustainable consumption practice, an aspect developed within the previous objectives, its success depends significantly on the signal that the authorities will give, as well as on how they will regulate the field.

With regard to this objective, the European Union has embarked on a wide-ranging legislative process, which, in addition to promoting the collaborative economy, aims to mobilize other legislative and financial instruments to facilitate the transition to a sustainable consumption and production model. In this respect, the European Union has introduced another concept, called the *circular economy*, which aims to "close the loop".

4. Overall Objective of the EU SDS: To improve management and avoid overexploitation of natural resources, recognizing the value of ecosystem services.

In support of the transition to a new paradigm, the promoters of the collaborative economy invoke a simple logic, namely that by increasing the life of the products and implicitly using them to the full potential, the production of goods is diminished, with beneficial consequences both on the environment line (reduction of waste) and savings (reduction of resource consumption).

Thus, concrete examples are derived from the studies on the use of certain goods in most households, which lead to the idea that a large part of them is underutilized. The most common example is cars, which, according to the studies, approx. 92% of the time are in the parking lot.

In order to facilitate and stimulate the development and take-up of specific behaviors specific to the collaborative economy, a legislative package promoting the circular economy, entitled "Closing the loop", was launched at the level of the European Union.

Through a circular economy, the European Commission understands a socio-economic system whereby "the value of products and materials is kept as long as possible, waste and use of resources are minimized and resources do not leave the economic flow once they have reached the end of their lifespan, but are reused and create value further on".

In fact, the action complements the agenda for the development of the collaborative economy as a prerequisite for increasing the quality and sustainability of products so that they can be re-introduced/ maintained for a longer period in the economic circuit.

In essence, by combining the patterns of behavior specific to the collaborative economy and the circular economy, a better use of the underutilized goods is achieved, an increase in the use and lifespan of the produced goods and, finally, a reduction of the resources used to produce such goods, these aspects without affecting in any way the degree of satisfaction of the needs of the population.

5. Overall Objective of the EU SDS: To promote equal access to high-quality health care and to improve protection against threats to health.

In Romania, health has become a major global problem, as a result of massive exodus of medical staff from the native medical system.

Under these conditions, it is increasingly difficult for patients to access quality medical care at a cost-effective price, mainly due to the low availability of qualified medical staff.

Continuous acceleration in the field of knowledge, innovation and technological development influences remarkably all areas of human existence including medical field with definite benefits in terms of improving the quality and accessibility of medical services.

This registry encompasses the many virtual medical platforms that provide healthcare services that are pooled generically under the name of e-health. An example of such an application is Mediprice. It was launched in Romania, representing a virtual meeting space for people interested in purchasing medical services and health professionals registered on the platform.

6. Overall EU-SDS Objective: To create a socially inclusive society by taking into account solidarity between generations and to secure and increase the quality of life of citizens as a precondition for lasting individual well-being.

Regarding this sustainable development objective, the collaborative economy contributes to several levels, both in terms of encouraging the behaviors and attitudes necessary for the development of social inclusion, as well as increasing the quality of citizens' lives.

First, no matter which party we are (supplier of goods/ services or consumer), engaging in the collaborative economy involves initiating and sustaining a social interaction. Therefore, there are many voices expressing that beyond the material benefits it has the potential to produce, the collaborative economy is primarily a vector of social equality. Practically, one of the motivations for adopting behaviors specific to the collaborative economy is that it allows a certain category of people to access goods and services they would not otherwise have, thus giving rise to new forms of solidarity. This view is also shared by M. Cohen, who sees the social side as a priority in developing and taking on sustainable consumption behaviors, to the detriment of the environmental dimension.

Also, by changing the vision of consumption and by facilitating the transition from ownership to access, the collaborative economy encourages the altruistic and prosocial behaviors, the fundamental prerequisites for the advent of humanity to the post-materialist stage.

Additionally, the collaborative economy determines an increase in efficiency, transparency and competitiveness, along with a reduction in the risk of informational asymmetry, aspects that contribute to a higher quality of life.

Also, the collaborative economy is manifested as a factor stimulating competitiveness on the market, which translates into lower prices for consumers.

Last but not least, the collaborative economy offers new opportunities on the labor market, providing a viable alternative to classic employee status through a flexible program and the ability to develop a new source of income based on underutilized assets.

Alternatively, the collaborative economy offers a good opportunity to enter the ranks of entrepreneurs without involving high costs and risks.

Finally, another aspect specific to the collaborative economy, innovation, provides the premises for an accelerated growth with high added value for both the entrepreneur and the community he serves.

Conclusions

The role of this article is to contribute to a better understanding of the theoretical and applied concepts that have developed within sustainable development in order to ensure the coherence of future public policies that will affect the economic field.

Sustainable development is and must remain a desideratum of all generations, a continuous process to engage every citizen in a responsible and continuous manner. Thus, viewed as an end in itself, sustainable development subordinates a wide range of instruments and measures, including the collaborative economy.

The European Union, the global leader in the fight against climate change and the promotor of a sustainable economic development approach, has adopted, besides the legislative package for the cooperative economy, a firm commitment to stimulate the circular economy designed to "close the loop".

At the level of Romania, although it can be said that there is a normative framework dedicated to the transition to a sustainable development-centered economy, it seems to be inconsistent and unaccompanied by a plan of systematic measures to promote and popularize the practical means by which the population can make an important contribution to this goal.

Regardless of the material or environmental benefits promised by the collaborative economy, its success in terms of contributing to the fulfillment of sustainable development objectives depends largely on producing a change in current production and consumption practices. Without a profound change, without solidarity, cooperation and trust, any effort, initiative or action is doomed to failure.

From an economic point of view, the key points of sustainable development are represented by the reduction of environmental pollution and the productivity of natural resources, meaning more goods and services per unit consumed.

Therefore, sustainable development, like the collaborative economy itself, does not only refer to changing people's behavior regarding the environment, but also to changing thoroughly the conception of the economy, society and politics.

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ACTUAL ISSUES OF GLOBAL CORRUPTION

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Abstract

Modern corruption tends to exceed the boundaries of origin countries, becoming a shadowy part of the process of economic and financial globalization. It forms specific financial relations and illicit financial flows, produces distortions in the distribution of Gross Domestic Product, contributes to functioning of shadow economy and negative financial phenomena. In the context of globalization process, corruption can be divided into internal (ie origin of corruption practices of country's residents) and external (that is, the one practiced by participants outside the country for the satisfaction of their own interests). One form of the last is transnational corruption, which often takes place with the participation of transnational companies. Globalization of corruption activities requires unification of countries' efforts to tackle this issue effectively

Key words: *corruption, corruption finance, transnational corruption, illicit financial flow*

JEL classification: *D73, F21, F23*

Introduction

Corruption is an active or passive abuse of appointed or elected public servants and employees in private sector in order to obtain private financial or other benefits. It is also abusive use of public power in order to satisfy personal or group interests. As an anti-social act, corruption is particularly serious because it favors interests of some individuals, especially in economic area, affecting collective interests by: acquiring, hijacking and using public resources for personal interest, occupying public functions through preferential relations, concluding some transactions by circumventing moral and legal norms. Corruption involves a set of immoral, illicit, illegal activities performed not only by individuals with leading or public functions but also by various groups and organizations, public or private, in order to obtain material or moral advantages or social status superiority by using forms of coercion, blackmail, deception, bribery, purchase, intimidation. (Luchian, Tepordei, 2017)

In the opinion of some specialists, corruption generates money relations related to the distribution of Gross Domestic Product, revenues from foreign economic activity and a part of national wealth. As a result, revenues, receipts and accruals are generated for particular individuals, which are obtained by criminal activity and are still used to solve economic and / or other problems.

Research by the famous scientist Paolo Mauro in 1990s has allowed links to be made in the evolution of level of corruption in a country and its economic development:

- 25% reduction in corruption contributes to a 4% increase in investment in GDP, which leads to GDP per capita growth of 0.5%. (Moiseev, Ntsevichi, 2014), (Shukaylo, 2013)
- Increasing Corruption Perception Index (CPI) by 2.38 points contributes to increase of annual investments in the country's economy by 4% of GDP and GDP - by 0.5%. (*Влияние коррупции*..., n.d.)

Researchers Leite and Weidmann (1999) have shown that raising corruption by 1% reduces economic growth by 0.9% - 1.2%.

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The formation and development of such money relations allowed the introduction of notion of corrupt finances and their basic characteristics (Habibulina, 2011):

- Objective and informal character of participants activity of corruption relations;
- Unhelpfulness of use by participants of corruption relations of the financial resources belonging to society, state, enterprise, institution;
- Application of illegitimate means by participants of corruption relations.

Financial flows related to corrupt finances are channeled into two basic directions, which are interconnected. The first is related to public finance sector. In this context can be mentioned: public procurement, functioning of country's fiscal and customs system, various excruciations related to operation of state. The second direction is based on corporate sector, main areas being banking system, non-banking financial institutions system and non-banking corporate sector.

Corruption is a threat to the country's financial stability in the event of its major expansion. At the moment we can see the global spread of the corruption phenomenon, which creates new risk factors for the international financial system and requires the need for its profound study.

To characterize the importance of study on global corruption,

In Republic of Moldova, corruption has a double appearance. On the one hand, it has an endemic character, ie it comes from a number of local historical, cultural, social, economic and financial circumstances. Elsewhere, it has a systemic character, that is, it has virtually penetrated spheres of human activity.

The fight against this phenomenon is complicated by the fact that factors of corruption are of a somewhat external nature, coming from the phenomenon of global corruption, which has a number of important negative consequences and requires joint efforts of Moldovan authorities with international community for combat it.

In this context, Mihai Popsoi's statement is eloquent: "... if it will only continue to mimic the fight against corruption, Moldova will not be able to advance in the field of European integration. ... after the anchoring of Moldova to the European economic space, it becomes increasingly obvious that the main cleavage in the political debate in Republic of Moldova is less an East-West dilemma, but rather a rivalry between those who defend democracy and good governance and those who thanks to clientelism and corruption." (Popsoi, 2018)

Description of the problem

Corruption has become a global issue, which is confirmed by following statistical arguments:

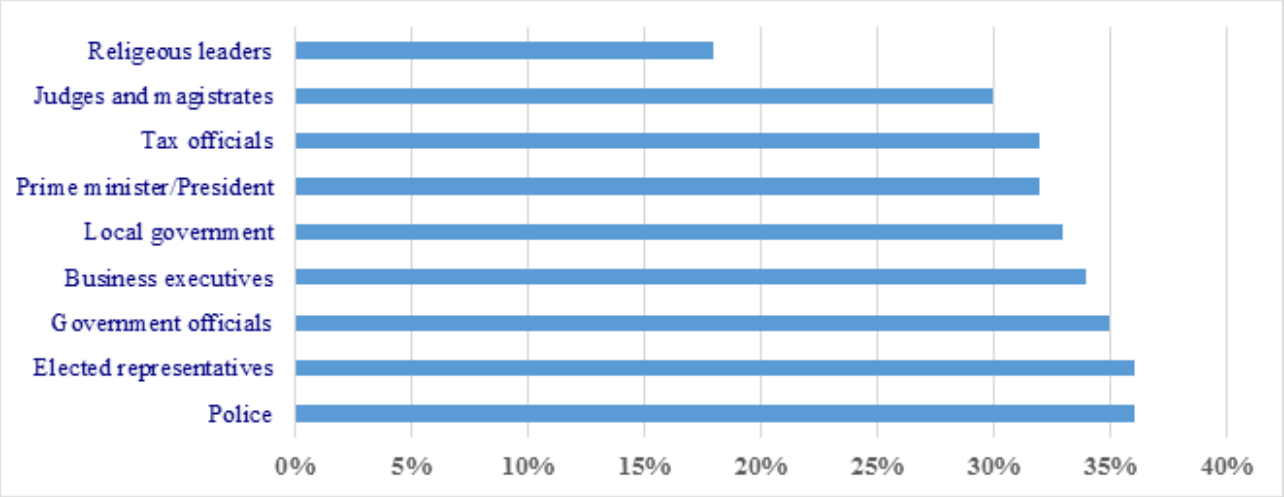
- According to calculations made by Tax Justice Network, in 1998-2013, shadow economy representatives together with corrupt officials appropriated and washed about USD 25 trillion. This amount, which is paralyzing global financial oligarchy, accounts for about 50 percent of global GDP. (*Международная финансовая...*, n.d.)
- According to World Bank calculations, corruption evades from 10% to 30% of money, which is allocated to finance large investment projects around the world. The study in 127 countries has shown that every seventh operation has become the object of money-laundering. In general, bribery, abuse of service mandates, theft and clientelism annually lead to a loss of USD 3.1 trillion, which represents 5.1% of global GDP. (Le Boucher, 2016)
- UN studies show that global economy's losses due to corruption amounted to USD 2.6 trillion. (Объем взяток..., n.d.)
- According to World Bank estimates, between 1996 and 2004 the average annual global bribe received amounts to about USD 1 trillion. (*Сумма взяток*..., n.d.)
- IMF specialists have estimated the total amount of bribes paid in 2016 in USD 2 trillion, which is about 2% of global GDP. (Danilova, 2016)
- In the developing world, the annual amount of bribes received ranges from USD 20 billion to USD 40 billion, which represents about 15-30% of World Bank's official development assistance. (OECD, 2014)
- Corruption along with economic crime is becoming an increasingly powerful means of redistributing property and capital, including those of criminal and shameful origin. Experts say economic losses caused by corruption amount to between 5% and 50% of some countries' GDP. For example, in Russia these losses amount to about USD 20 billion a year. Russia's law

enforcement bodies say that criminal structures in some branches (oil, gas, rare metals) spend up to 50% of their profits for bribing civil servants. (Shukaylo, 2013)
The idea of global spread of corruption is confirmed by results of Transparency International's investigations, which presented the level of corruption in 180 countries (out of 197) in terms of the Corruption Perception Index, where the ratings were made after a scale of 0 very corrupt) to 100 (clean forces).

Following the analysis, a certain degradation of situation in industrialized countries is remarkable. Thus, the highest CPI score in 2017 was recorded in New Zealand (89 points), Denmark (88 points) and Finland (85 points). And in 2014, the scores of those countries were 91, 92 and 89 respectively.

But a more serious problem is that two-thirds of countries score below 50 points, with world average remaining 43 points. And countries with the highest levels of corruption are Syria (14 points), South Sudan (12 points) and Somalia (9 points).
Transparency International also publishes the Global Corruption Barometer annually, which provides further details on global corruption.
In the meanwhile, following the global investigation, it was found that a person in 4 decaltered that he paid bribes within 12 months before the questionnaire.
However, this statistic differs from one region to another. For example, only 9% of respondents in European Union made similar statements, in Commonwealth of Independent States, North Africa and the Middle East countries - 30%, in the Sub-Saharan African countries - 23% in Asia Pacific countries - 28%, in Latin America and the Caribbean countries - 29%, in countries with intent to join European Union - 20%.
Also, the most corrupt institutions were identified (Figure 1).

Figure 1. Institutions considered most corrupt

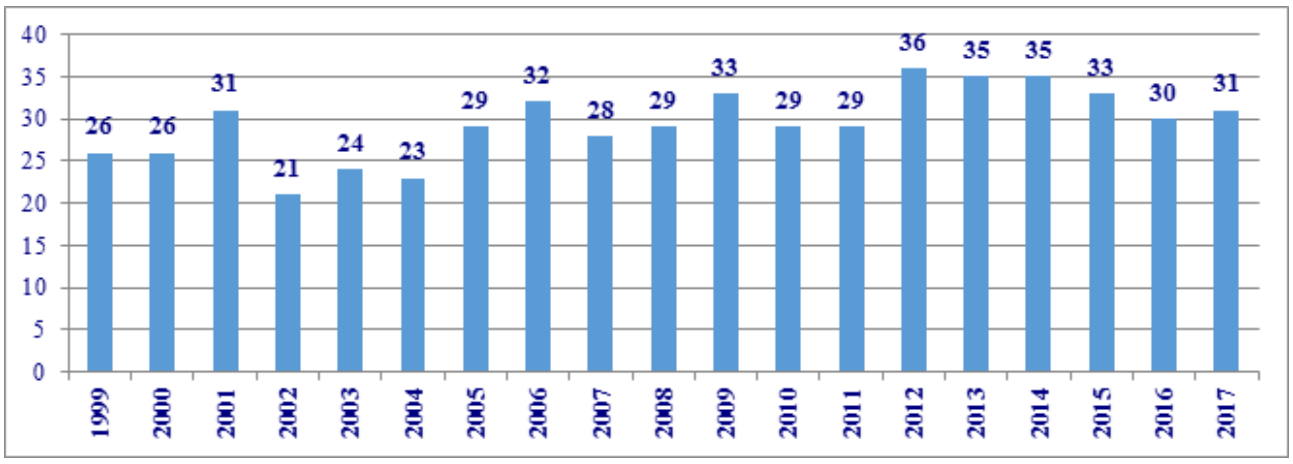


Source: (Pring. 2017)

Thus, 36% of the respondents indicated that the police and elected representatives are the most corrupt in respective countries. Then follow government officials (35%) and business executives (34%).

It is also specific that 54% of respondents said they are convinced of the possibility of changing corruption situation and are willing to contribute to it and 29% did not accept this idea.To characterize the phenomenon of corruption in Republic of Moldova, the most eloquent, in our opinion, is CPI dynamics shown in Figure 2. In 2017, Republic of Moldova recorded a CPI score of 31 points and ranked 122nd out of 180 countries included in the ranking.

Figure 2. Corruption Perception Index dynamics of Republic of Moldova during 1999-2017



Source: (Corruption Perceptions..., n.d.)

In 2016, the score was 30 points, being the worst for the Republic of Moldova in last six years, but it is much better than in 2002. However, if we take into account the fact, that the global average level of CPI is 43, the situation in Republic of Moldova in the field of corruption can be considered as very serious.

Epert-Grup experts use the estimate that corruption costs amount to 5% of world GDP. Based on this estimate and accepting that there is a direct link between CPI and corruption losses, for Republic of Moldova, the loss would amount to about 8.7% of GDP. Under these circumstances, the total loss for 2016 amounts to MDL 11.8 billion. (Expert-Grup. 2017)

In addition, a more recent estimate of EU countries suggests that global losses across EU countries are between 4.9% and 6.3% of the EU-28 global GDP. For countries such as Romania, the cost of corruption (based on the CPI index) would be about 15.6% of GDP, Bulgaria - 14.22%, Greece - 13.76% and Latvia - 13.16%. Under these circumstances, given the relatively similar conditions of these countries to situation in Republic of Moldova, it can be assumed that the total corruption losses would be at least 13% of GDP or 17.7 billion lei in 2016. (Expert-Grup, 2017)

In March 2018, the International Republic Institute conducted a similar study, which showed that 80% of the respondents considered corruption to be an extremely important issue, and 16% - as an important issue. (*IRI...*, n.d.)

Areas where corruption is most prevalent in the Republic of Moldova are presented in Figure 3 and main factors are shown in Figure 4.

Figure 3. Most affected areas by corruption in Republic of Moldova

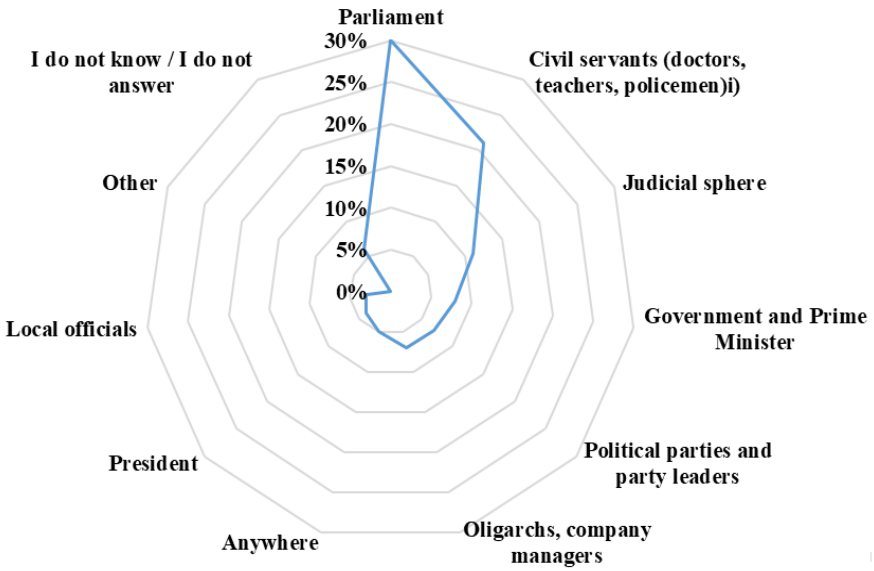
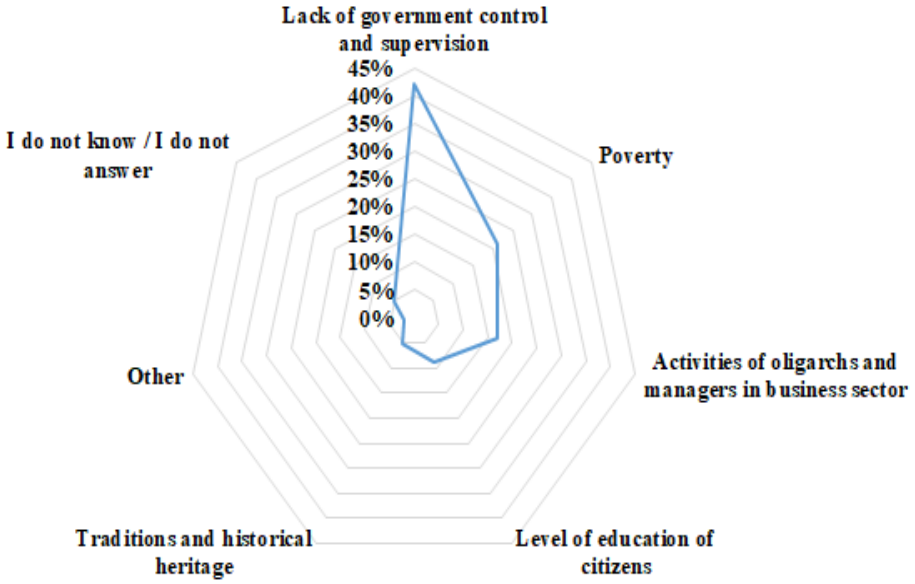


Figure 4. Main factors of corruption in Republic of Moldova



Source: (IRI..., n.d.)

It is significant that the most corrupt were following: Parliament (30%), civil servants (doctors, teachers, police officers) (21%), judicial sphere (11%), Government and prime minister (8% political parties and party leaders (7%), oligarchs and company managers (7%).

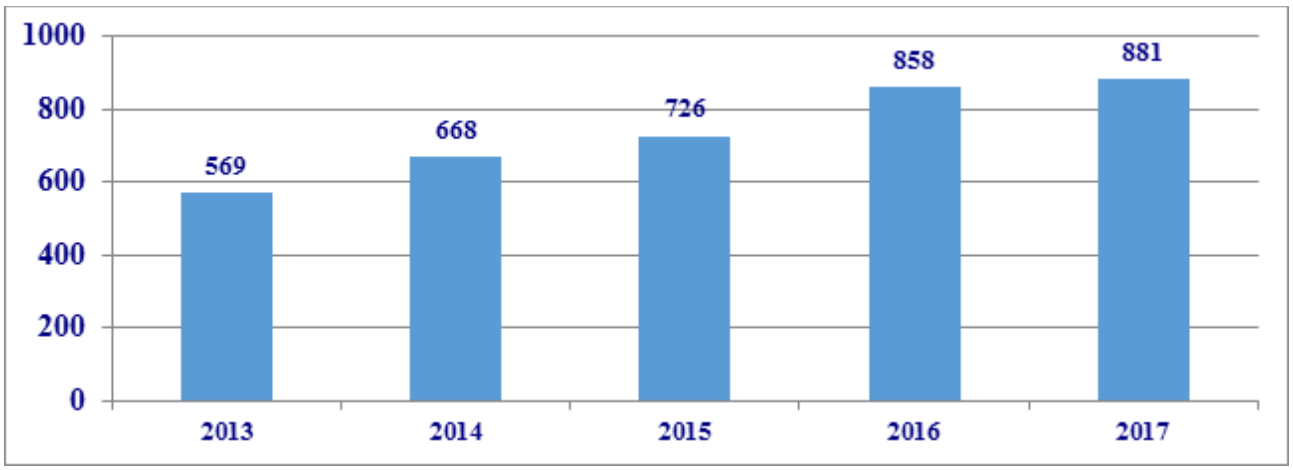
Also, the main causes of corruption were identified: lack of effective government control and supervision (42%); poverty (21%); activity of oligarchs and corporate managers (17%); level of education of citizens (9%); traditions and historical heritage (5%).

In 2017, Law of Integrity and National Anticorruption Strategy for years 2017-2020 were approved.

The new Law encourages the denunciation of corruption by public officials and contains provisions on the reparation of damage resulting from a corruption act or an act related to acts of corruption. It regulates the field of integrity in public sector at political, institutional and professional level, responsibilities of public entities, anti-corruption authorities and other competent authorities for cultivation, consolidation and control of integrity in public sector, important areas for integrating private sector integrity into process interacting with the public sector and penalizing the lack of integrity in public and private sectors.

During the period 2013-2017 the performance of main anti-corruption body - National Anti-Corruption Center - grew, whose investigators in 2017 detected 881 crimes, this number increasing by 2.7% compared to the year 2016 (Figure 5).

Figure 5. Dynamics of crimes detected by National Anticorruption Center



Source: Activity reports of National Anticorruption Center for years 2016 and 2017

As a result of special investigative actions, in 2017 NAC officers detected following categories of offenses: corruption and corruption-related acts - 698; money laundering offenses - 39; other categories of offenses - 144.

Methodology and data sources

Investigations made in recent years by authors of this article on financial globalization have demonstrated the existence of some shadowy aspects of it. On the other hand, basic aspects of corrupt finances have been studied. As a result, the assumption of corruption globalization has been developed. It has been tested by studying the reports of international and national competent institutions, as well as results of analysis carried out by experts in the given field in different countries. This allowed determination of channels for creation and development of corruption globalization and its impact on situation in Republic of Moldova

Results obtained

Research has shown that the development of global corruption is due to a group of factors:

- Behavior of industrialized countries in the field of corruption;
- Development of international financial infrastructure;
- Developing cross-border corruption;
- Participation of transnational companies in the implementation of international corruption schemes.

The behavior of industrial countries in the field of corruption

The above mentioned shows that corruption situation in industrially developed countries is far better than the world average, but there are a number of serious issues.

Some analysts consider the problem of corruption in the US as an all-encompassing issue. In 2014, the US-questioned citizens said the following issue was important in terms of unemployment, and those surveyed by Gallup in the proportion of 75-80% considered US authorities to be corrupt.

Periodically, the international information environment is shaken by US corrupt scandals, which are largely related to the misappropriation of public funds and abuses admitted by civil servants of different levels.

It is interesting to note that in some cases corruption has a regional character.

Corruption has become an important issue within European Union. In European structures it has reached colossal proportions. If, in the past, the amount of embezzlement from European funds reached hundreds of millions of euros

Different sources of information confirm that, in 2011, the volume of corruption in European Union amounted to EUR 120 billion. In 2013, this figure has risen to EUR 323 billion and in 2016 - to EUR 990 billion. (Tihonov, 2013), (*Еврокомиссия* …, n.d.), (*The cost*…, n.d.)

Also, various experts blame the industrialized states to develop corrupt methods of civil servants and leaders of political parties in developing countries.

But in the case of Republic of Moldova there is a certain pressure from industrialized countries as development partners for intensifying the fight against corruption.

For example, the Moldova-EU Association Agreement, which is an international treaty between Republic of Moldova on the one hand and European Union on the other, which provides for cooperation in areas such as trade, security and culture, was ratified in 2014 will help build a deeper integration both politically and economically between RM and EU.

It is clear from the text of this document that the fight against corruption is a substantial condition of Moldova's European integration process. In particular, Association Agreement provides for 9 articles, containing the Republic of Moldova's commitments on combating corruption.

Global financial infrastructure development

The important elements of global financial infrastructure that serve various corrupt schemes have become offshore financial centers, which are usually small jurisdictions with a legally taxing regime, specialized in providing corporate and commercial services to non-residents in the form of companies and investment funds linked to their registration and management.

La momentul de față în 13 centre mondiale offshore sunt concentrate peste 1000 filiale ale băncilor transnaționale. (*Мировые…*, n.d.) As an example, Cayman Islands can be served and islands in Manche and Man Island are popular in Europe.
The US Congress National Security Committee investigation has shown that annually Amiric citizens conceal tax services at offshore financial centers from USD 40 billion to USD 70 billion and corporations up to USD 130 billion. It was also found that in 50 off-shore areas there are money in the total amount of about USD 1 trillion. (Ilinsky, 2015)

According to the international journalist investigation Panama Papers, over 214,000 offshore companies are involved in financial operations in more than 200 countries and territories. National Anticorruption Center of Republic of Moldova has committed itself to the Panama Papers investigation as 22 citizens of Republic of Moldova are part of the list of real beneficiaries of offshore companies registered in 21 tax havens. Such companies are main tools used for money laundering, tax evasion, bribery and many other financial engineering. (*Moldovenii...*, n.d.)

During the period 2010-2014 transnational corruption with the participation of offshore companies contributed to the transformation of Republic of Moldova into an international money laundering center with the involvement of important systemic commercial banks.

It is eloquent that during this period one of the most important international money laundering schemes, called "Laundromat", whereby 21 billion US dollars from Russia were swept through loans between legalized ghost companies on a corrupt basis through In accordance with the detected scheme, considered to be fairly simple, the phantom "debtor" refuses to repay the "ghost creditor loan." As a result, offshore companies sued each other fictitious debts, and Moldovan judges legalized the existence of these debts and ordered their acquittal by court orders. One of the main bankers in this system was Moldindconbank. (*Moldova...*, n.d.)

The involvement of offshore companies also contributed to the theft of about one billion USD in the banking system, which resulted in financial crisis.

Cross-border corruption developing

Ware and Noone (2007), World Bank specialists, introduced the notion of transnational corruption, which was defined as a form of corruption that intrigued states, including corporate and public issues, and uses intricate schemes for embezzling national wealth from their legitimate owners: citizens of state.

Transnational corruption is manifested in the form of bribery of persons empowered from a foreign country to obtain the possibility of pursuing or continuing economic activity in that country or of receiving undue advantages. This form of illegal activity has two forms of application: international economic cooperation and transnational organized crime. (Yujanin, 2012), (Kamnazarov, Sarsenov, 2013)

Author Gurjii (2014) mentions following aspects of transnational corruption:

- The most favorable conditions for corruptive phenomena exist in countries with an authoritarian regime of leadership, in conditions of dictatorship, totalitarianism, lack of transparency and publicity in activity of public and private civil servants. As a rule, in this context, it is the developing countries. The greatest danger is represented by corrupt public servants, who have been enriched by public money, thus depriving their fellow citizens of right to a decent standard of living, limiting their rights and freedoms, etc. At the current stage of development of information society, the corruption of top officials is superlative and is combined with total depreciation of moral values.
- The most destructive and dangerous situation is where embezzled funds are transferred to financial centers of different countries, whose administration refers to banking principles of confidentiality of depositors of money means and to creating its clients comfortable conditions for

preserving these means. In this case, bankers in fact become complicit in conducting corrupt activities, as they help to hide the stolen budgetary means of other countries.
In response to this situation, United Nations has developed the initiative to rescue developing countries of public money stolen by leaders of these countries. Countries that have stolen large amounts of public funds from corruption have proposed to strengthen control over financial flows and countries where these funds are placed refuse to keep money obtained through criminal activity and refuse the asylum of fugitive fugitive politicians of corruption. (*The Stolen…*, n.d.)

Author Salov applies the examined concept in connection with the activity of transnational companies (TNC). (Salov, 2011)

In relation to its specific aspects, TNC interests often do not coincide with interests of states, groups of states, international financial institutions and are focused on developing and profiting. As a result, there is a need for bribery or other corrupt influence on officials in foreign countries and international institutions.

Cross-border corruption stimulates tax evasion in Republic of Moldova. For example, in December 2012 some corruption schemes related to export of walnut kernel from Republic of Moldova were discovered.

It is also about encouraging participation in illicit international trafficking in goods. In November-December 2015, Customs Service and National Agency for Food Safety participated in the scheme of Polish fruits imported into Republic of Moldova, then re-exported to Belarus with phytosanitary certificates of false origin issued by before-mentioned modovian authorities. The purpose of this business was to ensure circumvention of the embargo imposed by Russia on apples from Poland.

Also, the contribution to destruction of country's forest fund may be indicated. Corruption schemes involve illegal logging in Republic of Moldova. Over the last five years in forests a volume of wood has been harvested exceeding 2.6 million cubic meters. But, according to experts, the real figure may be twice as big.

Corruption of transnational companies

Tranparency International's multiple research demonstrates the role of STN in enhancing global corruption, although world-wide prevention measures have been undertaken periodically that the *corporatocracy* (total of TNC, banks and governments) is now increasingly spoken. (OECD…, n.d.)

Interestingly, businesspeople in countries, which usually have high anti-corruption ratings, actively resort to bribery in other countries. The most eloquent examples are the US and Japan. Namely, TNCs from these countries pay bribes to civil servants from other countries.

Corruption is often used in international economic activity as an instrument for penetrating local markets and strengthening positions on them. Thus, many countries allow their corporations to exempt from taxation amounts spent for bribery abroad, considering them just as necessary for production, as are costs of purchasing raw materials and materials. (Abdipattaev, Orozbaeva, Bakirov 2015)

The unlimited financial strength of some companies and sectors of industrial and commercial activity is used for the sake of illicit influence on political decision-making. The impossibility of regulating this impact leads to emergence of cleftocratic systems and retention of economic development. As a rule, lobbying is not transparent and is aimed at avoiding the prevention and opposition system that firms rely on when making strategic decisions.

Taking into account the results of researches in this field, the reasons for the lack of positive effects of corruption prevention measures promoted by NTC. (Salov, 2011):

- The lack of accurate indicators of corruption measurement that would present the real situation of corruption and its forms;
- Dominance of neoliberal conception of capitalism, which promotes the idea of state's non-mixing in the functioning of the world economy;
- The insufficiency of modern legal and normative basis, regulating the NTC activity.

Recently, National Anti-Corruption Center of Republic of Moldova has unveiled corruptive schemes organized by some pharmaceutical companies, which functioned as follows (Cember, 2018):

- Representatives of pharmaceutical companies persuaded some physicians in the health care institutions, against unlawful remuneration, to prescribe certain medications in the stocks of pharmacies to patients.
- Employees of medical institutions have prescribed these medicines to patients and pharmaceutical unit where they can be purchased.
- Medical employees were systematically paid different amounts of money, goods, and in some cases they were sponsored to travel abroad.
- Salespeople insisted that physicians recommend that patients purchase a larger number of medicines on the grounds that expiry date of pharmaceutical preparations ends.
- Members of Compensated Medicines Board of mandatory health insurance funds have included or have unlawfully maintained certain pharmaceutical products in the List of Compensated Medicines.
- Some representatives of pharmaceutical authority were suspected of transmitting information to pharmaceutical companies about unexpected checks to be made and assuring them that they would not be sanctioned even if certain violations were detected.

Conclusions

The process of spreading corruption has gained a global scale, that is now the case to talk about corruption globalization. It takes place in close correlation with global shadow economy, tax evasion and other negative phenomena, generating, in turn, shadow financial flows. Thus, global corruption has become an important impediment to global economic development, but especially in developing countries. It has several forms of manifestation, one of which is cross-border corruption and one generated by transnational companies. The aggravation of the global problem of corruption is linked to a number of factors. This requires further strengthening the efforts of the global community to combat corruption. Corruption in the Republic of Moldova has gained a systemic character, being stimulated, to a certain extent, by cross-border corruption, which involves in its schemes participants from different countries as well as representatives of international economic and financial entities. Also, combating corruption in Republic of Moldova is fundamentally complicated by the existence of global financial infrastructure, which allows sheltering and use of means originating from corruption, and behavior of some transnational companies. Taking into account the increased economic and financial potential of global corruption, in addition to efforts made within Republic of Moldova, it is necessary to strengthen the international cooperation of empowered authorities to combat this problem.

Future Directions to Be Approached

The continuation of studies will consist in tracking the evolution of corruption situation in the world and in Republic of Moldova for adaptation of anti-corruption strategies..

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THE USEFULNESS OF TAX AMNESTIES: CONTRADICTORY APPROACHES

Luchian Ivan [145]
Tepordei Aurelia [146]

Abstract

Tax amnesty means a complex of measures related to granting to taxpayer the right to pay amounts of taxes, at which the payment terms established by legislation passed. It is not only undertaken to collect budget revenues, but it is more important for state and taxpayers to move to a new level in their relationships, when state allows for legalization of income and wealth obtained by circumventing legal rules, and taxpayers recognize the obligation to pay taxes. There are several arguments in favor of tax assets, but it can damage tax discipline and encourage tax evasion. Republic of Moldova has the experience of organizing tax amnesty, whose results are contradictory. The purpose of research was to establish essence of tax amnesty, forms of its application and its effects both in terms of international experience, and of Republic of Moldova.

Keywords: *tax amnesty, taxpayer, debt, tax, tax evasion*

JEL classification: *E62, H30*

Introduction

Either tax amnesty is a government program permanent or for a limited period, that allows taxpayers to address the tax collection agency on their own initiative and disclose inaccurate or incomplete information from previous fiscal years, or discloses materials that they did not report them during their previous relationship with the agency, without punishment or prosecution. (*Tax amnesty (b)*, n.d.)

For example, in some countries the practice of tax amnesties has become a common ome. In United States since 1982, a total of more than 80 tax amnesties were held in 44 states. Each of them lasted from a month and a half to six months. Interestingly, no benefits for amnesty are not provided. If within the indicated time limits, citizens themselves declared about the taxes that they had not previously paid, then penalties were minimal or were canceled altogether. However, taxes themselves must be paid in full. (*Как проводились ...,* n.d.)

The practice of organizing tax amnesty in the world is relatively widespread, but their modalities and results vary from one country to another. In some cases, it is reported that there is a significant additional revenue in the state budget. In other cases, there is talk of declining fiscal discovery and increasing the phenomenon of tax evasion.

It is considered one of the most effective fiscal amnesty in Ireland since 1988, as the perceived means accounted for about 2.5% of the country's GDP, which was sufficient to cover the budget deficit of that year.

In 1997, a tax amnesty was organized in India, which brought the state budget 2.5 billion USD, three times more than all combined tax amnesties held earlier in the country. One of reasons for success was that citizens were asked to pay income tax on previously hidden income at current rates, rather than those that existed at the time of receiving these incomes and were 3-4 times higher. This amnesty was accompanied by a massive advertising campaign in all media, as well as repeated reminders of ministers that such an amnesty was held the last time. (*Налоговые амнистии...*, n.d.)

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In 2007 the modest amount of 130 million USD was collected in Russia's fiscal amnesty. In this case, the program did not refer to people previously convicted of tax offenses. Nevertheless, in 2018 a new tax amnesty was announced.

The opinions of experts on fiscal amnesty are also different, sometimes even opposite.

Hence, the hypothesis of existence of certain conditions in which tax amnesties may be useful or in which they are contraindicated.

At present, the opportunity of fiscal amnesty in the hope of solving problems of tax evasion and shadow economy is discussed, which implies the need to international experience study in this field in order to apply optimal solutions in Republic of Moldova.

Description of the problem

Tax amnesty is a limited opportunity for a certain group of taxpayers to pay a certain amount in exchange for forgiving a tax obligation (including interest and penalties) for an earlier tax period and without fear of prosecution. Usually, this expires when an authority starts a tax audit of tax previously owed. In some cases, legislation providing for amnesty also imposes more severe sanctions on persons eligible for amnesty but who do not accept it. Tax amnesty is one of voluntary compliance strategies to increase the tax base and tax revenues. It is partly different from other voluntary compliance strategies, if tax amnesty usually discourages taxpayers' liability. (*Tax amnesty… (a)*, n.d.)

Essentially, fiscal amnesty is a law issued by central authorities to forgive tax liabilities in previous years to taxpayers. Through this measure, Government provides an advantage to taxpayers, allowing them to correct mistakes or omissions in tax statements without fear of legal action. It is usually set for a fixed period and may be linked to outstanding tax liabilities from one or more annual periods. If taxpayer fails to cancel the debt by using amnesty, and then evasion is discovered, severe punishments and sanctions apply. (*Tax evasion..., n.d.*)

In some cases, tax amnesty is combined with the amnesty of capital, which means the legalization of money in the form established by state. As a rule, a mandatory condition for amnesty of capital is the payment of a certain tax and demand for the partial or total bringing of capital into country. (*Амнистия капиталов, n.d.)*

As a rule, tax amnesty has the following characteristics (*Налоговая амнистия*, n.d.):

- Applying once, meaning that state grants the right to legalize earnings once in a limited time.
- There must be objective premises for fiscal amnesty. Usually, it is about fiscal system's imperfection during the fiscal amnesty.
- Legalization of property for which tax is paid and refusal of state to lawfully persecute offenders.

Basic goals of tax amnesty as a rule are as follows (Monkov, 2016):

- Replenishment of state budget on account of funds received as a result of declaring hidden or late payments of taxes;
- Financial stabilization of bad-platinum debtors, ensuring, in some cases, the passage of funds from shadow sector of economy into legal one;
- Capital repatriation of foreign capital in the real sector of economy;
- Creating legal bases and mechanisms in state relations with taxpayers;
- Prophylaxis of tax violations and offenses.

At the beginning of the 21st century, authorities of several countries have declared the success of tax amnesties.

In 2007, in the UK, the first tax amnesty was announced, aimed at collecting unpaid taxes from taxpayers, who did not declare income received in offshore zones. As a result of this amnesty GBP 400 million was contributed to the state budget.
The second tax amnesty was announced in the UK from September 1, 2009 to March 12, 2010, in accordance with terms of which owners of offshore accounts could declare their income by paying a 10% penalty. In this framework of amnesty was calculated to collect 2 billion pounds sterling.

Italy organized a tax amnesty in 2001-2002 aimed at countering capital outflows and tax evasion. Applicants were required to pay 2.5% of the declared value of the property or to purchase Italian securities in an amount equal to 12% of the value of the hidden property. As a result, in the first two months, capital of EUR 61 billion was returned, tax collections amounted to EUR 24 billion and tax on returned assets brought EUR 1.4 billion to budget.
In 2009, the fiscal amnesty to a further declaration of Italian citizens' incomes illegally retained abroad for amount of 80 billion EUR, resulting in tax revenue of 4 billion EUR.

Fiscal amnesty organized in South Africa from October 2016 to August 2017 contributed to collection of ZAR 1.1 billion with 2000 involved participants.

Fiscal amnesty in Argentina in 2016 is considered effective as it contributed to legalization of money for USD 90 billion, being collected in state budget in the amount of USD 5.2 billion.

In 2010, a fiscal amnesty for millions of Greek citizens was carried out in Greece by paying only 55% of outstanding debts.

In other countries, tax amnesty purposes have been partially achieved.

The tax amnesty announced in Germany in 2004-2005 brought EUR 900 million to federal budget, although Ministry of Finance of this country hoped to receive EUR 5 billion. To this end, Germans were asked to return money from secret foreign accounts, paying a single tax on the amount so legalized upon release from further legal prosecution.

In Belgium, in 2004, it was officially declared that citizens who took out the capital abroad, who had bank accounts abroad, could return these money in the country without any sanctions until the end of year, paying 6% if funds were invested in shares of Belgian companies for a minimum of three years and 9% of repatriated amounts. The amount of repaid capital amounted to only EUR 1 billion (or 6% of the planned amount).

In addition, experts as unsuccessful consider some tax amnesties. These include, for example, those organized in Argentina in 1982 and 1982 and 1986 in France.

In 2004, United States was given the opportunity for corporations to repatriate taxable money, with a return of more than USD 360 billion. However, experts, evaluating this amnesty, noted that there is no evidence that this amnesty added at least one job in the US economy. (Abbyasova, 2016)

The first tax amnesty in Republic of Moldova (2007)

In 2007, the first fiscal amnesty was defeated in Moldova, where company tax debts were canceled, fines and penalties amounting to MDL 4.4 billion in relation to budgetary system according to situation as of 1 January 2007 and unpaid May 11, 2007.
This initiative of central authorities of Republic of Moldova was complex and was based on three pillars (Berbeca, Tăbârță, 2016):

1) Capital legalization program - state has proposed to legalize the capital or value of capital declared amnesty in return for payment to state budget of 5% of this amount.

2) Fiscal amnesty itself related to cancellation of mentioned debt of MDL 4.32 billion – MDL 2.16 billion as basic debt and MDL 2.18 billion as accumulated amount of the penalties.

3) Reform of tax system for legal persons. Revenues of enterprises reinvested for development was taxed at zero. At the same time, the tax rate was maintained at 15% for outputs from production process.

Results of this initiative of central authorities were very modest (Berbeca, Tăbârță, 2016):

- The volume of estimated capital for legalization was about USD 1 billion. Actually, assets and money were legalized in a total amount of MDL 360 million (which amounted to USD 35 million) on December 30, 2008. Respectively, revenues to state budget were about MDL 18 million after applying legalization fee (5%).
- Zero rate on reinvested tax had a negative influence on revenues of local public authorities, which became dependent on transfers from state budget.

- State lost about MDL 4.3 billion following the cancellation of mentioned debts. State-owned enterprises (which created a large part of these debts) continued to generate losses due to inefficiency. The amount of debts in 2010, one year after their cancellation, amounted to about MDL 1.2 billion.

Preparing for a new fiscal amnesty in the Republic of Moldova

In 2016 central Moldovan authorities instituted a six-month moratorium on controls performed by competent authorities.

In the opinion of expert Gheorghe Costandachi, negative consequences were very serious (Costandachi, 2017):

1. Reducing revenues of state budget in the summer of 2016 by MDL 2066 million, which represents almost 8% of budget volume.
2. During the operation of moratorium, there were hundreds and thousands of violations of fiscal legislation.
3. Increase in fiscal year 2016 of fiscal debt from 1 billion MDL to MDL 1.7 billion, ie by 70%.
4. During the entire period of moratorium, social security budget and medical insurance fund had a liquidity shortage.
5. Business actors have pointed out trapping by those who commit tax evasion, smuggle and counterfeit goods and are protected by various governing clans.

In December 2016, Moldovan Parliament approved in first reading the draft law on capital liberalization and fiscal stimulus, which was composed of 2 basic components. The first one was to liberalize capital. Any individual (a citizen of Republic of Moldova or his legal representative (parent, adopter, guardian, curator) could declare his assets (eg money, real estate, shares, securities, road transport), which were hitherto registered with other persons (eg relatives, interjects, etc.), or unregistered at all, or could re-evaluate the assets declared at a lower value, legal protection being guaranteed (state can not verify the origin of these and not to be able to impose sanctions on public officials for illicit acquisition or non-declaration of such property) in return for a 2% tax on value of assets. The second component was tax incentive: cancellation of all tax penalties for natural and legal persons in payment of due amount.

In essence, the law project provided for a capital amnesty and a quasi-fiscal amnesty (as it only targeted the tax penalties, not the basic debt).

Civil society and experts for compromising the rule of law and fighting corruption, legalizing money laundering and tax evasion, eroding the image of banking sector and cooling relations with development partners, have harshly criticized this document. As a result, the draft law was withdrawn from Parliament.

In December 2017, central authorities of Republic of Moldova submitted a new initiative on decriminalization of economic activity, which provided for a series of amendments to legislation, the issuing of criminal liability for a series of offenses specified in Criminal Code, including offenses related to lending and bank management, securities market, breach of shareholders' rights or obstruction of banking supervision. The release was to be applied, if the offense was committed for the first time, person repaired the damage and paid in state budget twice the maximum amount of fine provided for by Criminal Code for the offense.
According to experts, this legislative change would send out dangerous signals for the future about accepting similar illegal behaviors and de facto provided criminal facilities to scammers involved in bank fraud or obstruction of banking supervision.
Essentially, to a certain extent, it was a transformed form of fiscal amnesty, which could stimulate tax evasion.

The second fiscal amnesty in the Republic of Moldova (2018)

In July 2018, Parliament of Republic of Moldova approved the amnesty of capital to bring money from shadow economy to real economy, which stipulated that individuals can voluntarily declare undeclared goods by indicating the source of income and paying 3% (which was then increased to 6%) tax on the value of liberalized goods until December 10, 2018. Voluntary declaration of assets does not refer to certain civil servants who have held public positions after 2009.

However, so-called "fiscal stimulus" in the form of cancellation of fines and penalties for late payment is very important in the case of paying taxes and duties until 20 December 2018. The total amount of debts to be canceled is MDL 11.2 billion, ie over 20% of GDP and over 7% of the GDP of the Republic of Moldova in 2017.
Out of this amount, MDL 9.03 billion are due to special records, which are temporarily irrecoverable or with a low degree of recovery, including penalties and fines not paid by legal and physical persons suspected of tax evasion. The special record included tax liabilities of 2578 taxpayers, ie about MDL 3.5 million per company.

Methodology and data sources

In order to conduct the research on tax amnesties, information from official information sources, public institutions' reports, as well as opinions, results of analysis carried out by local experts were studied. Also, the wider analysis of context of triggering each of tax amnesties in Republic of Moldova was carried out. As a result, an integrated image was created, which allowed conclusions to be drawn on specific national aspects of tax amnesties usefulness.

Results obtained

The carried-out research indicates the multilateral nature of tax amnesty usefulness, which can be examined from a fundamental, technical and essential point of view.

In a fundamental approach, the effectiveness of tax amnesty can be seen as a predominance of its advantages over its shortcomings.

Analyzing the experience of different countries allows highlighting some positive aspects of fiscal amnesty (Luchian, Tepordei, 2017):

- Obtaining resources for state budget from the collection of hidden taxes or with expired payment deadline.
- A certain economy is obtained from funds that would be spent by public authorities for undertaking fiscal and other control measures related to the conduct of investigations and prosecution.
- It is possible to broaden the tax base in account of oppressors removing from the shadow sector of economy into legal economic circuit. It is assumed that by getting the chance to get rid of old debts, taxpayer will not want to buy new ones and pay taxes correctly and on time.
- If taxpayer obtains the possibility of legalizing his assets accumulated outside the country, based on conditions of amnesty, it is possible to increase the volume of investments on the territory of country on the account of repaired means.
- Tax amnesty can be of prophylactic importance. Given that the discovery of tax violations is fully real and subsequent punishment is unavoidable, forgiving of tax violations in return for debt repayment to state contributes to formation of a favorable business climate in the country and, in particular, to creation of trust relationships between taxpayers and state.

Research has shown that the effects of tax amnesty are spread over a medium term, after which they are significantly reduced.

For example, in Russia following fiscal amnesty, an increase in tax collections was observed in 2010 (+ 22% compared to 2009) and in 2011 (+ 26% compared to 2010). Then there were problems. In 2012, tax revenue growth was only 13%. (Aldamjarov, 2014)

However, at the same time, tax amnesties have a number of negative aspects:

- It is a violation of fundamental principle of fiscal equity, expressed through equality of all before the law and obligation to pay taxes.
- It is psychological effect expressed by mistaken perception of situation by taxpayers, as state, forgiving the conscious violation of tax legislation, does not have serious capacities to ensure the collection of taxes.

- Long-term fiscal and capital amnesty results in an even greater indebtedness of countries due to reduced tax collection because of expectation of population, economic agents for future amnesty.

When assessing the effectiveness of fiscal amnesty, it is important to take account of its type. The study made it possible to group tax amnesties into three basic types:

- *Tax amnesties for regulatory purposes*. The amnesty of this type is carried out in situations when there are serious divergences in taxpayers' views regarding the necessity and way of paying certain taxes to the opinion of tax authorities based on discrepancies and gaps in existing legislation. Of course, the success of this amnesty is related to removal of these fiscal dysfunctions;
- *Tax amnesties for restoring tax discipline*. This type of tax amnesty in most cases is applied in the situation where central authorities of country try to restore their relations with taxpayers from new positions. As an example, US tax amnesty may be presented, when Swiss bank UBS sent to US tax authorities information on accounts of 4450 US citizens. The amnesty consisted in filing a taxpayer's declaration of funds in foreign bank accounts and pay a fine of 20 percent of maximum amount recorded in his account since 2003 plus taxes and penalties. Thus, the total amount of payments could reach 60-70 percent of the amount of funds in the accounts. The result of the amnesty was the receipt of declarations of accounts of Americans in 70 countries of the world and receiving the corresponding payments;
- *Tax amnesties for other purposes*. These amnesties are organized in the context of activities with special purposes, such as fighting the shadow economy.

The lowest level of efficiency (which is in fact predictable) is related to amnesty organized as result of political clientelism, when central authorities exempt certain privileged categories of taxpayers from paying tax by later forgiving these tax frauds in exchange for fidelity and political support.

International experience allows us to highlight conditions in which tax amnesty can be effective (Abyasova, 2016):

- Serious guarantees of lack of punishment;
- Keeping information confidential;
- Applying amnesty once;
- Non-confiscatory character;
- Developing a broad campaign of explanation and propaganda;
- Combining amnesty with the real threat of punishment in the event of subsequent tax concealment.

The efficiency of tax amnesty also largely depends on general situation in the economy as well as state of mind in society.

In order to create real incentives for return of entrepreneurs from shadow to legal, it is important to have a clear tax system and tax burden must be bearable. In addition, an efficient tax service is necessary, which is primarily able to detect bad payers and to hold them accountable, and secondly to cooperate with honest taxpayers to ensure their consultation and other assistance instead of creating bureaucratic problems. (Roche & Duffay, 1999)

In order to ensure the amnesty of capital, in the opinion of many specialists, this measure must be carried out under certain conditions, such as creating legislation, providing access to banking information, establishing serious liability for non-declaration of funds on bank accounts abroad, increasing investment attractiveness, reducing tax burden combined with compliance with tax equity rules. It is also important for the country's international authority to work with interesting countries for bad payers. (Zaharov, 2014)

An important catalyst for fiscal amnesty can be a tightening of punishments for tax evasion, especially for taxpayers who have refused to accept central government offerings.

For example, one of succes factors of tax amnesty in Italy in 2001-2002 consisted in tightening the liability for violating tax laws: before the amnesty, penalty for hiding capital or property ranged from EUR 250 to EUR 2000, after - from 5% to 25% of hidden funds plus confiscation of property for the same amount.

It is important that if tax amnesty is repeated more often, it is more destructive for tax discipline, because at some taxpayers cease to pay taxes while waiting for the next amnesty.

In addition, any tax amnesty can have multiple side effects. For example, a tax amnesty in Italy in 2009 provoked the aggravation of this country's relations with Switzerland due to the massive withdrawal of money from Swiss banks by Italian citizens. Just from Credit Swisse were made out CHF 15 billion.

Similarly, fiscal amnesty may worsen the political situation in the country.

The utility of the fiscal amnesty in the Republic of Moldova in 2018 is only very problematic, being organized in very uncomfortable conditions.

The level of tax collection is relatively low. Tax evasion accounts for one third of GDP, equivalent to ROL 40 billion or over EUR 2 billion. In 2018 showed that the tax gap in 2016 constituted 7% of GDP, which corresponded to the volume of 9.5 billion lei.

However, proportions of combating tax evasion are very modest in scale. In 2015, the State Tax Service notified the law enforcement agencies in 438 cases related to tax evasion. Of these, criminal cases were initiated in 128 cases, accumulating over MDL 3 million to the national public budget. In the year 2016, 6710 lawsuits were drawn up in contravention of MDL 7.6 million.

Corruption is a catalyst for tax evasion. Annual losses to Republic of Moldova from corruption in 2016 amounted to between 8% and 13% of GDP or about MDL 11.8-17.7 billion. Direct losses of public finance system (or respective annual income of corrupt individuals) in the year 2016 constituted 1.1% -2% of GDP or MDL 1.5-2.7 billion. Thus, direct losses due to corruption constituted 3.1% - 5.6% of National Public Budget. [Budianschi, 2017]
At the same time, the Association Agreement between European Union and Republic of Moldova was signed in 2014. As a result, Republic of Moldova has assumed substantial obligations in the field of public finance management. In order to benefit from provisions of this Agreement, it is necessary to make a series of systemic adjustments, including in budgetary and fiscal matters, that is to say, provisions of Titles IV and, respectively, Chapters 7 and 8, to public finance management in the area of budgetary policy, internal control, financial inspection, external audit, as well as cooperation on budgetary and accounting systems.

Another important factor is the existence of shadow economy. His share has increased from 20% in GDP in 2007 to 28% in 2013 and 30% in 2014.

Consequences of recent tax amnesty in Republic of Moldova are very uncertain.

These actions of central authorities of Republic of Moldova have been harshly criticized by many local and international specialists, considering that adopted measures will increase the regressive character of fiscal system, reduce the degree of fiscal compliance, expose fiscal-fiscal system to significant risks and will undermine efforts to combat corruption.

Tax amnesty had a negative effect on business perception by businesspersons in Republic of Moldova and was demoralizing for honest taxpayers.

Along with capital amnesty, it has become one of the factors worsening the relationship with development partners. IMF and the World Bank Group said they were worried about the consequences of the organized fiscal amnesty. According to the authorities of European Union, Moldova has violated provisions of Association Agreement through these activities.

In addition, we consider very serious opinions expressed regarding the contribution of fiscal amnesty and capital amnesty to transformation of Republic of Moldova into a money-laundering center. If central authorities of country fail to produce evidence that would prove the opposite, international sanctions may become inevitable.

Conclusions

Tax amnesties can be considered as instruments for improving the functioning of the country's tax system. However, the effciency of its application is expressed by a range of its advantages and disadvantages and depends on a complex of fundamental factors.

It is of great importance the dependence of tax amnesty on compliance with rules and principles of tax amnesties organization, as well as fight against shadow economy and corruption, improvement of the taxpayers' culture and tax discipline and so on.

Tax amnesty can be effective as long as it is rather an exception than a rule. With increasing predictability, tax amnesties may have a number of adverse effects.

The fiscal amnesty carried out in Republic of Moldova, contrary to expected beneficial effects of central authorities, had very modest results. In addition, the one unfolded recently will soon have negative effects in the near and long term perspective.

Future Directions to Be Approached

The study of addressed topic in the paper is to be continued by results monitoring of current tax amnesty in Republic of Moldova.

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